

Galaxy

SCIENCE FICTION

FEBRUARY 1958

35¢

BREAD
OVERHEAD!

By
FRITZ
LEIBER

GRAVEYARD
OF DREAMS

By
H. BEAM
PIPER

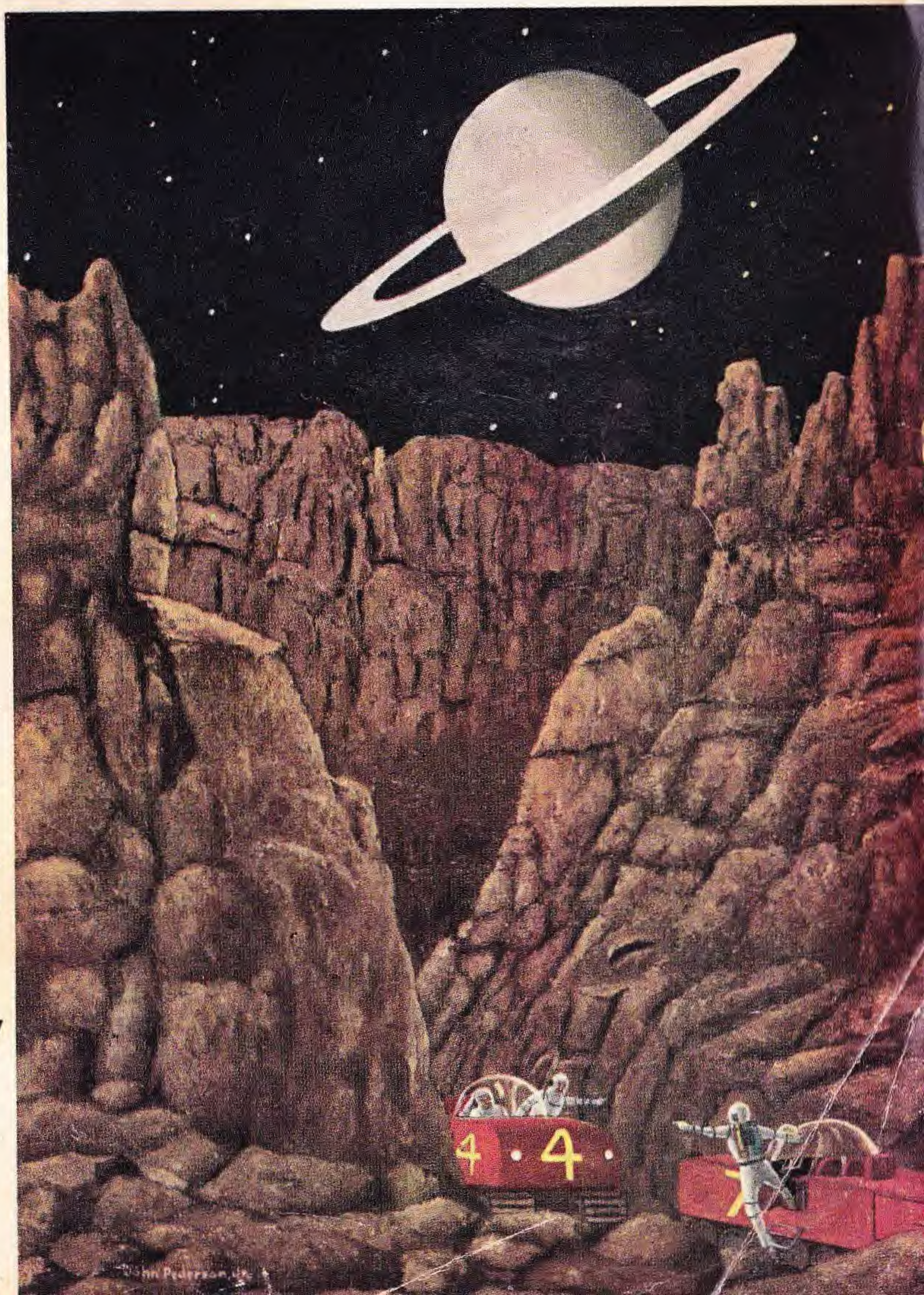
THE RULE
OF THE DOOR

By
LLOYD
BIGGLE, JR.

A CENTURY OF
NEW ANIMALS

By
WILLY
LEY

and Other Stories



FEBRUARY 1958

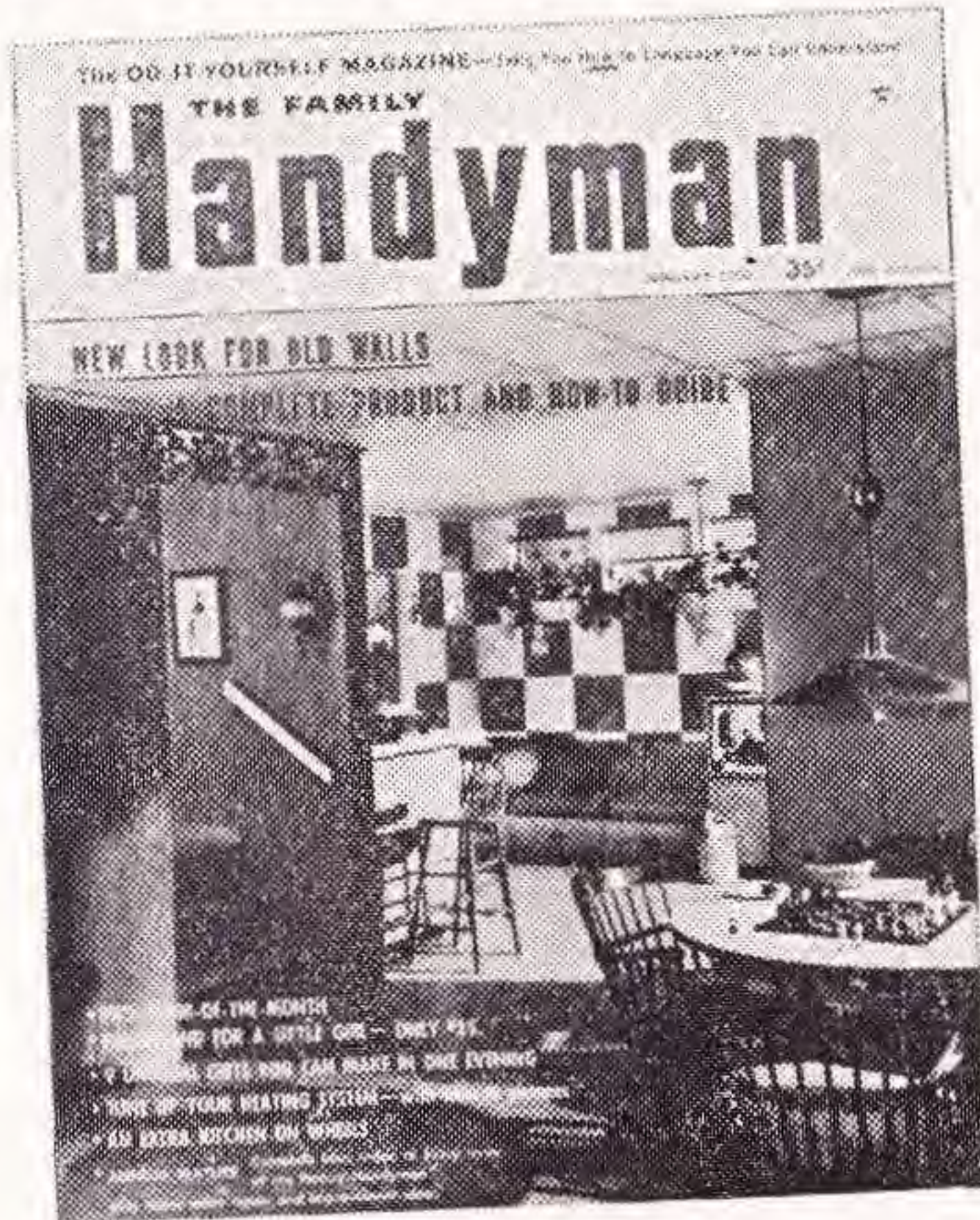
GALAXY



Science Fiction

**NOW! SAVE HUNDREDS OF DOLLARS
ON HOME IMPROVEMENTS!**

DO-IT-YOURSELF with



THE FAMILY Handyman

- Finishing Basements
- Finishing Attics
- Essential Repairs
- Built-ins
- Painting
- Refinishing
- Landscaping
- Patios and Terraces
- Barbecues

Don't put off those vital home repairs and improvements another day! Do-it-yourself with the aid of THE FAMILY HANDYMAN, the magazine that tells you "how" in language you can understand!

Imagine changing that drab kitchen, converting the basement to a game room, glamourizing your outdoor patio—or any other luxurious improvement . . all are now possible at very little cost to you!

THE FAMILY HANDYMAN tells you everything you need to know. Large, clear drawings show every detail of construction. Easy-to-follow, step-by-step instructions make it as simple as ABC. Professionally-written articles give you valuable pointers on how to save work, buy and save on proper materials and get a professionally-perfect job!

Get THE FAMILY HANDYMAN today! It will become an invaluable part of your workshop library!

AT NEWSDEALERS EVERYWHERE FOR THE LOW, LOW PRICE OF ONLY 35c.

Is your collection of *Galaxy Magazine* complete?

If not, here is your chance to fill in missing copies.

Back numbers of *Galaxy Science Fiction Magazine* are available from May, 1951, on.

Inventories are running low. Don't miss your chance to complete your collection.

6 For \$1.50 or 35c each

	1951	1952	1953	1954	1955
Jan.	Sold out				
Feb.	Sold out				
Mar.	Sold out				
Apr.	Sold out				
May					
June					
July					
Aug.					
Sept.					
Oct.					
Nov.					
Dec.					

Jan. 1956

Feb. 1956

March 1956

TOTAL

GALAXY Publishing Corp.

421 Hudson Street • New York 14, N. Y.

Enclose check,
cash or money order.
We pay postage

Name

Address

City State



Naturally

Best

Choice

Each Thursday nite on Radio!
Check your local listings for the best
stories from **Galaxy** — forcefully
dramatized — its **Naturally** your
Best Choice for tops in adult Science
Fiction.



X-1=The choice from Galaxy, adapted by the tops at N. B. C.

OPTICAL BARGAINS

See the Stars, Moon, Planets Close Up!
3" Astronomical Reflecting Telescope
 Famous Mt. Palomar Type!
 60 & 120 Power—An Unusual Buy!



PHOTOGRAPHERS!

Adapt your camera to this Scope for excellent Telephoto shots and fascinating photos of moon!

Assembled—Ready to Use!

You'll see the Rings of Saturn, the fascinating planet Mars, huge craters on the Moon, Star Clusters, Moons of Jupiter in detail. Galaxies! Equatorial mount with lock on both axes. Aluminized and overcoated 3" diameter

highspeed f/10 mirror. Telescope comes equipped with a 60X eyepiece and a mounted Barlow Lens, giving you 60 and 120 power. An Optical Finder Telescope, always so essential, is also included. Sturdy, hardwood, portable tripod.

Free with scope: Valuable STAR CHART and 272-page "Astronomy Book."

Stock No. 85,050-F\$29.50 f. o. b.
 (Shipping wt. 10 lbs.) Barrington, N. J.



4 1/4" ASTRONOMICAL TELESCOPE

Mt. Palomar type. Up to 270 power. A fine Reflector Telescope complete with real Equatorial Mount and Tripod and 6X Finder. Aluminum tube, 4 1/4" dia. mirror, rack and pinion focusing eyepiece holder, 2 eye-pieces and mounted Barlow Lens for 40X, 90X, 120X and 270X. Shipping weight approx. 25 lbs.

Stock #85,006-F.....complete.....\$74.50 f. o. b.
 Barrington, N. J.

New! 2 in 1 Combination Pocket-Size 50-Power MICROSCOPE and 10-Power TELESCOPE



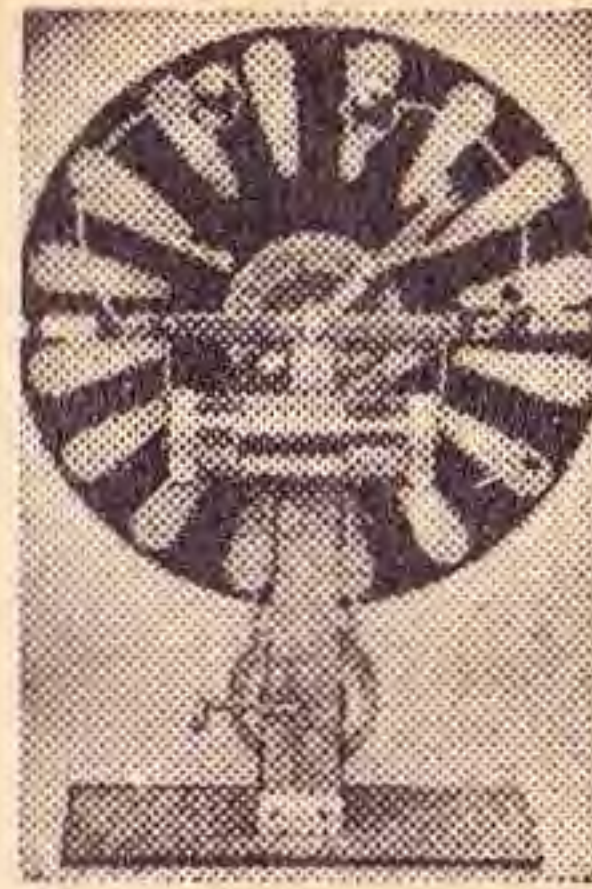
ONLY \$4.50 Postpaid

Useful Telescope and Microscope combined in one amazing precision instrument. Imported! No larger than a fountain pen. Telescope is 10-Power. Microscope magnifies 50 Times. Sharp focus at any range. Handy for sports, looking at small objects, just plain snooping.

Send Check or M. O.
 Satisfaction Guaranteed

Order Stock No. 30,059-F\$4.50 Postpaid

NEW! STATIC ELECTRICITY GENERATOR

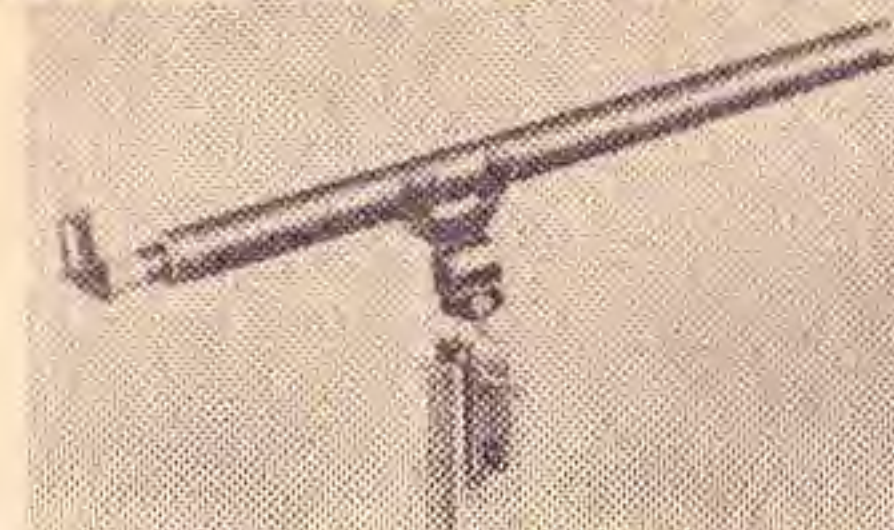


See a thrilling spark display as you set off a miniature bolt of lightning. Absolutely safe and harmless . . . ideal for Science Clubs. Sturdily made—stands 14" high. Turn the handle and two 9" plastic discs rotate in opposite directions. Metal collector brushes pick up the static electricity, store it in the Leyden jar type condenser until dis-

charged by the jumping spark. Countless tricks and experiments. 24-page instruction booklet included.

Stock No. 70,070-F\$10.95 Postpaid

Geophysical Year Scoop Real 150 Power Astronomical Telescope



Only \$16.95 Postpaid
 Refractor type! Clear, razor-sharp viewing of stars, planets, craters on moon, etc. 32mm achromatic objective lens! First surface mirror diagonal (ends "stoop" viewing). Removable eye-

piece—interchangeable. 50, 75 and 150 power! Tube length 27 1/2". Special attachment clamp for vibrationless viewing. Money back guarantee. Included free: 273 page "Handbook of the Heavens," Star Chart and 16 page Star Booklet.

Stock No. 80,060-F.....\$16.95 Postpaid

LARGER 42mm OBJECTIVE MODEL—67, 100, 200 power—same features as above, with 38" tube length—(included free: "Handbook of the Heavens," Star Chart and 16 page Star Booklet).

Stock No. 80,061-F.....\$19.95 Postpaid

See The Satellites New, Low Price Satellite Telescope

Get ready for a terrific sky show as more Satellites are vaulted into space. See thrilling sights with our amazing Satellite Scope at unheard of low cost. Also view comets—use as a Richfield Scope for viewing star clusters. 5 power-wide 12° field. Use of high quality war surplus optics makes possible this bargain.



Stock No. 70,150-F.....\$9.95 Postpaid

GET FREE CATALOG — F

America's No. 1 source of supply for experimenters, hobbyists. World's largest variety of Optical Items. Bargains galore. . . . War Surplus—Imported — Domestic! Microscopes, Telescopes, Satellite Scopes, Infrared Sniperscopes and Parts, Prisms, Lenses, Reticles, Mirrors and dozens of other hard-to-get Optical Items.



ORDER BY STOCK NUMBER. SEND CHECK OR MONEY ORDER. SATISFACTION GUARANTEED!

EDMUND SCIENTIFIC CO., BARRINGTON, N. J.

REPEAT PERFORMANCE

WRITES Mrs. Owen Libby, Chicago: "Years ago, you had an editorial on toys. My dad showed it to me so I'd know what to expect with my baby son. I thought it was *hilarious!* But now that the child — well, it's no laughing matter, let me tell you. A lot of new parents badly need that editorial for perspective. Why not run it again for the poor things?"

Gladly, Mrs. Libby.

Never have there been so many toys, play costumes and amusements for children. It's an alarming situation. The lessons of history should help, but they don't. No generation has yet known how to cope with the problem.

But we can try. Let's (as) rationally (as possible) scrounge around in the past in order to understand the present and anticipate the headaches our kids will have with their own kids.

No matter how far back we go, the pattern remains identical:

Parents invariably give their children more toys and games than they had when they were youngsters. The children then have (at least it seems so to parents) everything to play with and nothing to play. The plaintive "What should

I do now?" brings forth the outraged "Why, when I was your age—"

What comes after that forms an oral record of the human race:

"—we didn't have wooden wheels to play with, just fire."

"—I wasn't allowed to have any shrunken heads until I was old enough to go out and hunt for them."

"—I wouldn't even dare ask for a slave of my own."

"—we didn't have bows—"

"—arquebuses—"

"—ducking stools—"

"—stagecoaches—"

"—railroad trains—"

"—airplanes—"

And now it's all the paraphernalia in miniature of the Old West, crime, war, Atomic Age, space.

Very few adults have ever been able to resist delivering the why-when-I-was-your-age lecture. Having done my own share, I wonder what drives us to it. Exasperation, of course, but mostly envy camouflaged by recollections of deprivation bravely borne.

The deprivation is obviously in the present, since one does not feel deprived of something that doesn't

(Continued on page 6)

Galaxy

SCIENCE FICTION

ALL ORIGINAL STORIES • NO REPRINTS!

CONTENTS

NOVELETS

THE RULE OF THE DOOR	by Lloyd Biggle, Jr.	8
BREAD OVERHEAD	by Fritz Leiber	74
GRAVEYARD OF DREAMS	by H. Beam Piper	122

SHORT STORIES

THE BIG BOUNCE	by Walter S. Tevis	37
THE REPAIRMAN	by Harry Harrison	60
THE BLUE TOWER	by Evelyn E. Smith	90
TRADERS RISK	by Roger Dee	108

SCIENCE DEPARTMENT

FOR YOUR INFORMATION	by Willy Ley	47
A Century of New Animals		

FEATURES

EDITOR'S PAGE	by H. L. Gold	4
FORECAST		73
GALAXY'S FIVE STAR SHELF	by Floyd C. Gale	104

Cover by PEDERSON Showing TRAFFIC JAM ON RHEA

ROBERT M. GUINN, Publisher

WILLY LEY, Science Editor

JOAN J. De MARIO, Production Manager

H. L. GOLD, Editor

W. I. VAN DER POEL, Art Director

SONDRA GRESSEN, Asst. to the Editor

GALAXY *Science Fiction* is published monthly by Galaxy Publishing Corporation. Main offices: 421 Hudson Street, New York 14, N. Y. 35c per copy. Subscription: (12 copies) \$3.50 per year in the United States, Canada, Mexico, South and Central America and U. S. Possessions. Elsewhere \$4.50. Entered as second-class matter at the Post Office, New York, N. Y. Copyright, New York 1957, by Galaxy Publishing Corporation, Robert M. Guinn, president. All rights, including translations reserved. All material submitted must be accompanied by self-addressed stamped envelopes. The publisher assumes no responsibility for unsolicited material. All stories printed in this magazine are fiction, and any similarity between characters and actual persons is coincidental.

Printed in the U.S.A. by The Guinn Co., Inc., N. Y.

Title Reg. U.S. Pat. Off.

(Continued from page 4)

yet exist. We had our soapbox cars and other makeshift toys, including discarded eggbeaters and such from the kitchen, and we never suspected or missed the daz-zlesome gadgets of today. Even if we had, though, we'd have kept it to ourselves; we'd only have been inviting still more tiresome reminders of how much harder our elders' childhoods were than ours.

Envy seems a mean emotion for an adult to have, but it shouldn't need an apology. Older generations *did* have less in their youth and, contrasting it with the next generation's engorgement, they couldn't possibly see how a child could own so many things and not know what to play with.

Naturally, we've outgrown the desire for toys, but here is the blunt truth — we wish we'd had them as children. That envy is very visible to me in the case of science fiction. I recall digging doggedly for it along the bookshelves of public libraries; there was hardly any and that bit hidden well among general titles. Instead of having to hunt, children now have to dodge.

What with toys, books, magazines, comics, radio, TV, movies and princely allowances, it does seem as if we have more to envy than any previous generation.

But what will our kids face?

The thought that they'll tell their youngsters how little they had to play with may seem preposterous, but is it?

Toys are an excellent index to a civilization; they're non-functioning replicas of devices in common use—as a rule. The exception, of course, is the element of fantasy in play and playthings. If an alien race tried to analyze our civilization via toys and books, it would have to conclude that we are gunmen and have space travel.

As technology advances and the number of gadgets increases, so must playthings become more numerous and complex. It would be absurd to expect one without the other.

What will our grandchildren play with? To know that, you'd have to be able to outguess progress. But you may be sure that toys will *at the very least* keep abreast of science.

Now add the certainty that we'll reach other planets within a single generation. Lord knows what we'll find there in the way of artifacts, pets and plants. *But whatever we find, the kids of that day will have either as imports or imitations.*

I feel sorry in advance for their parents, who'll yelp in vexation, "A whole solar menagerie and you don't know what to play with? Why, when I was your age—"

—H. L. GOLD

MARK YOUR CHOICES

EACH MARK Means

Hours of Good Reading Enjoyment

GALAXY PUBLISHING CO., INC.

421 Hudson Street, New York 14, N. Y.

Please send me post-paid the novels checked below.

- | | | |
|--------------------------|---|-----------------|
| <input type="checkbox"/> | 1—SINISTER BARRIER by Eric Frank Russell | SOLD OUT |
| <input type="checkbox"/> | 2—LEGION OF SPACE by Jack Williamson | SOLD OUT |
| <input type="checkbox"/> | 3—PRELUDE TO SPACE by Arthur C. Clarke | SOLD OUT |
| <input type="checkbox"/> | 4—THE AMPHIBIANS by S. Fowler Wright | SOLD OUT |
| <input type="checkbox"/> | 5—THE WORLD BELOW by S. Fowler Wright | |
| <input type="checkbox"/> | 6—THE ALIEN by Raymond F. Jones | |
| <input type="checkbox"/> | 7—EMPIRE by Clifford D. Simak | SOLD OUT |
| <input type="checkbox"/> | 8—ODD JOHN by Olaf Stapledon | SOLD OUT |
| <input type="checkbox"/> | 9—FOUR SIDED TRIANGLE by William F. Temple | |
| <input type="checkbox"/> | 10—RAT RACE by Jay Franklin | |
| <input type="checkbox"/> | 11—CITY IN THE SEA by Wilson Tucker | |
| <input type="checkbox"/> | 12—HOUSE OF MANY WORLDS by Sam Merwin, Jr. | |
| <input type="checkbox"/> | 13—SEEDS OF LIFE by John Taine | |
| <input type="checkbox"/> | 14—PEBBLE IN THE SKY by Isaac Asimov | |
| <input type="checkbox"/> | 15—THREE GO BACK by J. Leslie Mitchell | |
| <input type="checkbox"/> | 16—THE WARRIORS OF DAY by James Blish | |
| <input type="checkbox"/> | 17—WELL OF THE WORLDS by Louis Padgett | |
| <input type="checkbox"/> | 18—CITY AT WORLD'S END by Edmond Hamilton | |
| <input type="checkbox"/> | 19—JACK OF EAGLES by James Blish | |
| <input type="checkbox"/> | 20—BLACK GALAXY by Murray Leinster | |
| <input type="checkbox"/> | 21—THE HUMANOIDS by Jack Williamson | |
| <input type="checkbox"/> | 22—KILLER TO COME by Sam Merwin, Jr. | |
| <input type="checkbox"/> | 23—MURDER IN SPACE by David V. Reed | |
| <input type="checkbox"/> | 24—LEST DARKNESS FALL by L. Sprague de Camp | |

Please
Enter My
Order For
Your Next 6 Novels
I Enclose A \$2.00
Check Here ☐
Add 50c Foreign Postage

6 For \$1.50 or 35c each

\$.....

Enclose check,
cash or money order.
We pay postage

Name

Address

City State

*If nobody up there
liked the barbaric natives
of this backward little planet . . .
why couldn't Skarn
come to prey
and at least stay to scoff?*

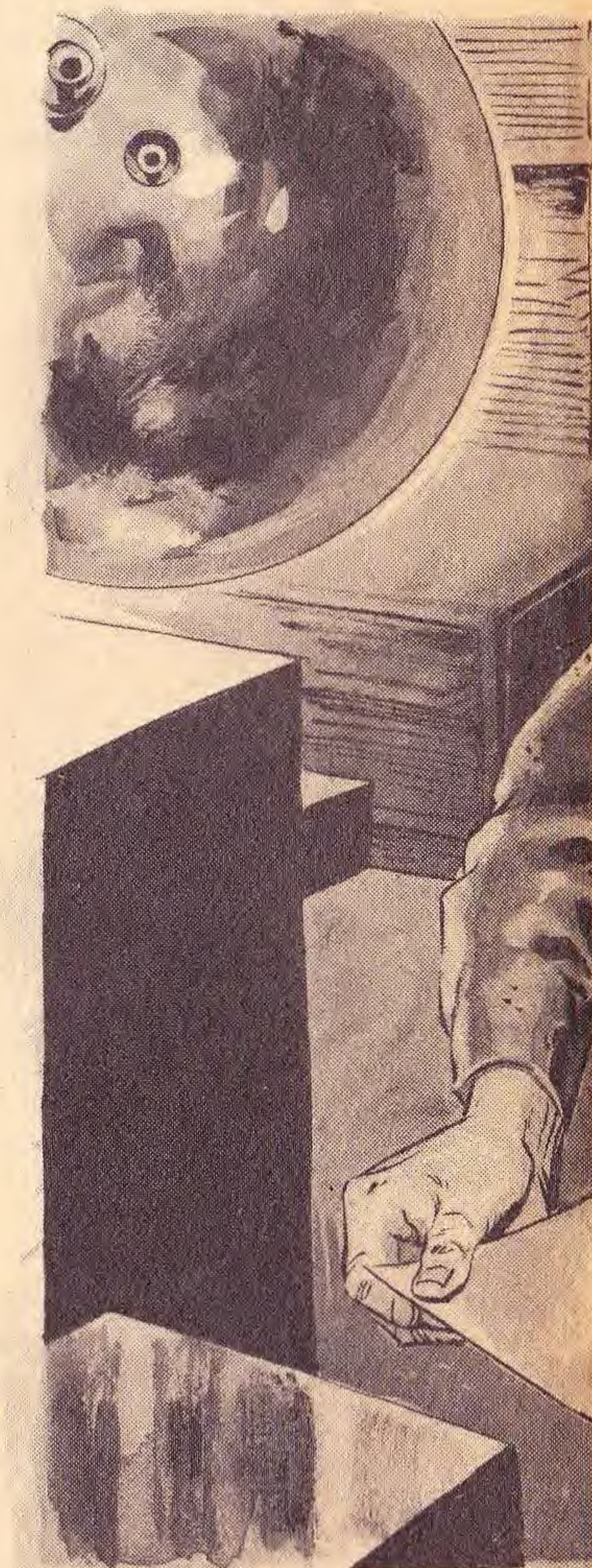
PROFESSOR Skarn Sku-karn twisted abruptly on the soft expanse of his bed and sat up. A glance at the pink-tinted indicator told him that the Time of Sleep was no more than half expired. He stretched himself, yawned and rubbed his eyes.

"Strange," he murmured. "Perhaps it was that sliff I had for dinner."

He immediately rejected this idea as an assumption unworthy of a distinguished psychologist and padded softly into his laboratory. His lecture notes lay stacked neatly on his desk. He thumbed through the metallic sheets, mildly surprised that he felt no trace of fatigue. His mind was alert; his ideas flowed with sparkling clarity. He stood for a moment, looking thoughtfully at his notes, and then he slipped into his flowing professorial robes and mounted the lectern which stood in all its imposing grandeur in one

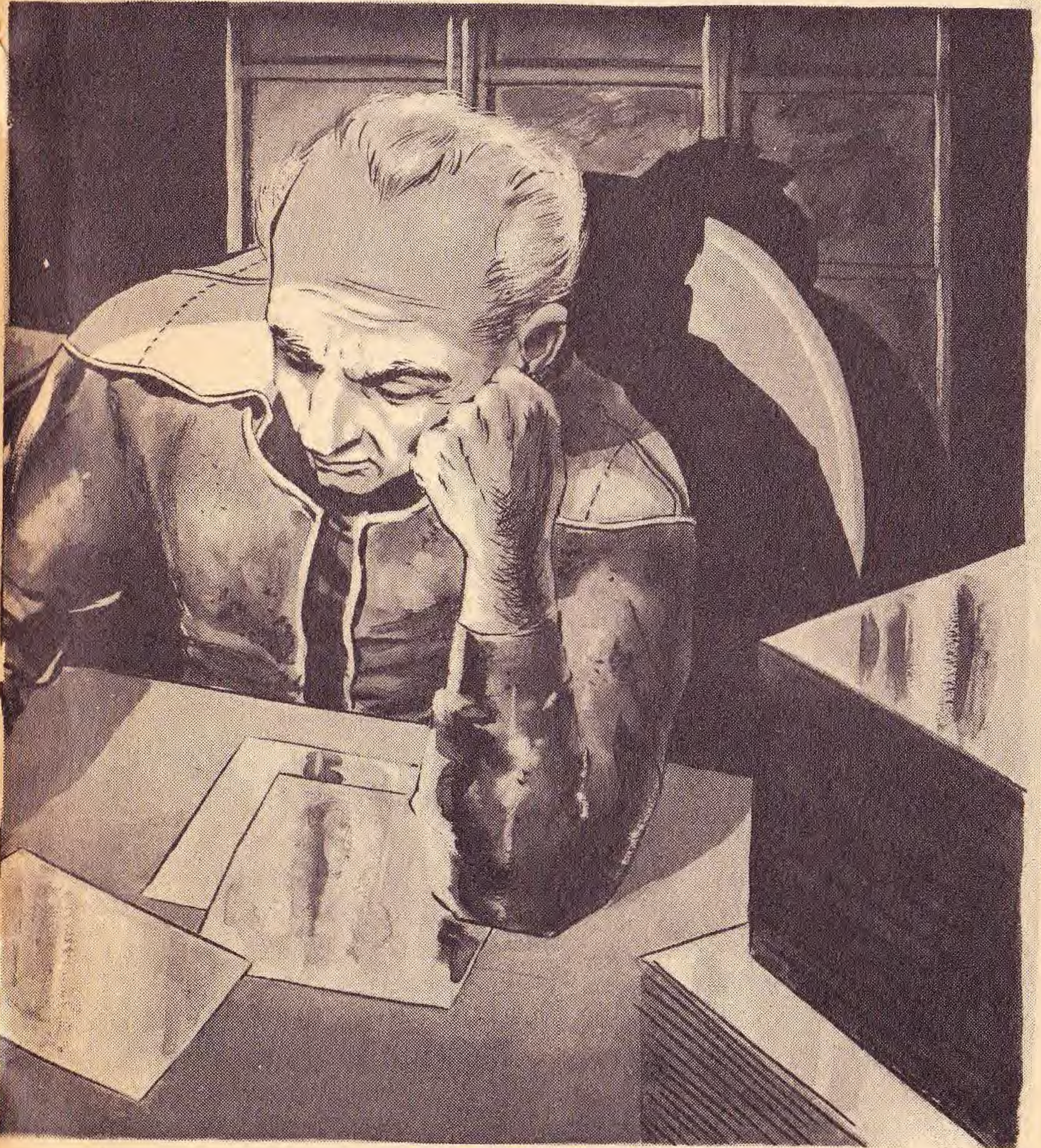
Illustrated by WOOD

THE RULE



OF THE DOOR

By LLOYD BIGGLE, JR.



corner of the laboratory. He pressed a button and waited.

Throughout the length and breadth of the great university city of Kuln, he knew, oaths and screams of dismay would be curdling the air as hundreds of students were tumbled from their beds by their tingling wrist bands. They would scramble for their viewers, asking themselves, "What's the old fool up to now?"

The thought pleased him. He was not cruel like some of his colleagues, who took fiendish delight in tormenting their students during the Time of Sleep. Never in his long academic career had he imposed upon his students. But it might be an interesting psychological experiment, he told himself, to see how much knowledge a sleep-fogged mind could absorb. He would deliver one of his more difficult lectures and follow it immediately with an examination. If the results were interesting enough, he would make some comparative experiments and perhaps collect enough data for a book.

He waited the minimum time which custom allowed him, and began. "Lecture nine hundred seventy-two. The effect of radiation impulses on motor pathways of the subconscious."

He hesitated. His own wrist band tingled sharply, almost painfully. With a sudden rush of panic, he understood what it was that had

awakened him. He bounded away, scrambled back to the lectern to announce, "To be continued," pressed the cancellation button and hurried off to his own viewer.

The face that stared out at him was drawn and haggard. It was the Prime Minister, and Skarn could easily guess who it was that had disturbed *his* sleep. The Prime Minister scowled and said enviously, "You are looking well, Skarn."

"Likewise," Skarn said politely.

"I am *not* looking well. I am looking miserable. I'm tired."

"Naturally," Skarn agreed.

"An Imperial Assignment. You will begin immediately."

SKARN clucked his tongue joyfully. Such an honor did not come more than two or three times in the entire span of living. "I shall serve eagerly," he said. "May I inquire . . ."

"You may," said the Prime Minister. "A patrol ship has discovered another inhabited planet. His Imperial Majesty desires a specimen of the dominant life-form for the Royal Collection."

Skarn stirred uneasily and a bluish flush of irritation tinged the smooth white flesh of his face. "I am no pickler of lizards," he growled.

"That you are not," the Prime Minister acknowledged.

"May I inquire . . ."

"You may. The dominant life-

form on the planet is intelligent."

"I still fail to comprehend why a psychologist . . ."

"The Rule of the Door applies."

Skarn scratched his bald head thoughtfully and hoped he was not making a fool of himself. "That Rule is unfamiliar to me," he admitted. "May I inquire . . ."

"You may. The Rule of the Door was propounded by the Great Kom when an Imperial Ancestor of His Imperial Majesty desired a specimen of an intelligent life-form."

Skarn bowed deeply at the mention of the venerable psychologist of psychologists. "It is no doubt an excellent Rule."

"It has been canonized, along with the other magnificent Rules propounded by the Great Kom. However, this being only the second time in countless glims that an Imperial Majesty has requested an intelligent specimen, the Rule has not been much used."

"Naturally," Skarn said.

"In fact, the Rule is no longer included in the Canon of Rules. Were it not for the superb memory of His Imperial Majesty's Prime Minister, the Rule would not have been followed at this crisis."

"You are to be congratulated."

"His Imperial Majesty has already done so."

Skarn waited expectantly, and when the Prime Minister volunteered no more information, he began, "May I inquire . . ."

"You may. The content of the Rule has been lost."

"In my most respectful opinion, the Rule can then be followed only with extreme difficulty."

"His Imperial Majesty does not minimize the difficulty. It was this problem that caused him to summon such a distinguished psychologist as yourself. At my suggestion, of course. Your task is to rediscover the content of the Rule of the Door, to follow it scrupulously, and to obtain for His Imperial Majesty the desired specimen."

Skarn bowed. "I shall direct all of my humble talent to the task."

"Naturally," the Prime Minister said. "You will, of course, be granted an unlimited expense account."

"Naturally. I shall also require unlimited time."

"Naturally."

"I shall also," Skarn said, licking his lips in anticipation, "require Imperial permission to search the Sacred Archives."

"Naturally. I shall expect your presence at the Imperial Palace immediately."

The viewer darkened. Skarn manipulated the dials, saw the blue acceptance light flash, and stepped through to the Imperial Palace.

DURING three Times of Sleep, Skarn prowled the Sacred Archives. He sifted rapidly through pile after pile of metallic sheets. He found the lost Theorems of

Wukim. He came upon the legendary Speculations of Kakang. And finally, in a damp corner, he discovered a stack of sheets as tall as himself which were the notebooks of the Great Kom.

Duty and curiosity struggled briefly in his mind, until he effected a deft psychological compromise. He read through the notebooks with reverent care, but only until he found the Rule of the Door. No further. He carried two of the sheets to have impressions made, sadly returned the originals to the Sacred Archives, and sought out the Prime Minister.

"I have found the content of the Rule of the Door," he announced.

"Excellent. Your name shall appear high on the next achievement citations. What is the content?"

Skarn bowed. "I do not entirely understand it, but this much is apparent: the Rule of the Door consists of — a Door. Here. I have impressions of the notes of the Great Kom."

The Prime Minister squinted at the ancient script. "It is a fitting tribute to the logic of the Great Kom that the Rule of the Door should consist of a Door. You can read this?"

"Much of it is clear to me," Skarn admitted cautiously.

"I see. And the diagram. Now this would be an ancient model of a matter transmitter."

"Naturally. And this, you see, is

the Door. The desired specimen steps through the Door and is immediately transmitted — perhaps to a self-sealing specimen bottle."

"The Door appears to be strangely complicated."

"Naturally. It involves, you see, a thought-wave analyzer and a subconsciousness prober. This would be an ancient model of a personality computer. The other instruments are strange to me. But here — this would be the central data computer, which makes the final decision."

"Amazing."

"In his inestimable wisdom, the Great Kom realized that the disruption of the life process of an intelligent being was not a project to be undertaken impulsively. He formulated a series of maxims, you see. 'Spare the humble one, for his nature is sublime. Spare the wise one, for his nature is rare. Spare the one who loves others more than himself, for love is the ultimate meaning of life. Spare the head of a family, for his loss would injure many. Spare the weak one, for his weakness renders him harmless. Spare the generous one, for his acts merit kindness.' There is much more. Some of it I do not understand."

"The Rule of the Door must be extremely difficult to apply," the Prime Minister mused.

"Praise be to the Great Kom, we do not have to apply the Rule. We have only to build the Door, and

the Door will select a proper specimen for His Imperial Majesty."

The Prime Minister clapped his hands. "Excellent! You will proceed at once to this planet and build the Door."

THE citizens of Centertown, Indiana, were agog with excitement. A veritable mansion was being erected on the outskirts of their fair community. The owner was, it was said, a retired Texas oil millionaire. Or a maharaja who had escaped from his irate subjects with a fortune and a few paltry dozen of his wives and was settling in Indiana. Or a wealthy manufacturer who was going to develop their town into a sprawling metropolis.

Whoever he was, he was in a hurry. Centertown was sorely taxed to supply the necessary labor force. Men were imported from Terre Haute, and a Terre Haute contractor put in a winding asphalt drive through the trees to the top of the wooded hill where the house was taking shape. On Sunday afternoons, the population turned out en masse to inspect and comment on the week's progress.

As the mansion neared completion, the general reaction was one of disappointment. It was large but not spectacular. Its architecture was conservative. Several of Centertown's moderately wealthy boasted more elaborate dwellings.

But the inside — ah, *there* was

something to talk about! The good citizens of Centertown hung eagerly on the words of the carpenters who described it. There was no basement, and except for a lavatory and a small utilities room, most of the first floor was a vast living room. And the owner had a positive mania for closets and doors.

Along one entire wall of that spacious living room were closets, large, windowless closets. The doors were structural monstrosities, fully two feet thick, which functioned strangely and were hung with an odd type of hinge no one had ever heard of. And the doors opened inward. Who ever heard of a closet with a door that opened inward? There were eleven of these closets, and the center closet was left unfinished and doorless.

Clearly, this new resident of Centertown was a most peculiar person. If the workmen were to be believed, he even *looked* peculiar. And the painters, returning from putting the finishing touches on the living room, added another element of mystery. Overnight, a door had been placed on the central closet. A locked door.

SKARN SKUKARN, Jonathan Skarn to the people of Centertown, took up his residence in the new house on a crisp fall day and led a newly arrived, shivering assistant on a tour of inspection. Skarn was less than pleased with his assistant. The squat, ill-tempered

Dork Diffack was grumpy, insulting and generally obnoxious. He was also treacherous. Skarn knew that Dork would be immensely pleased if the Assignment ended in failure, since the disgrace would be Skarn's.

He also knew that he could not fail, praise be to the Great Kom.

Dork snorted disdainfully and turned back toward the house. "Abominable climate," he growled. "And these barbarians — I must admit they have intelligence, since they have a civilization of sorts, but it can't be much intelligence."

"Nevertheless," Skarn said, "they are intelligent, so the Rule of the Door must apply."

"Intolerable nonsense. Why go to all this bother and expense to collect a specimen? Why not just pack one off and have done with it? There are enough of the creatures running around here." Dork glanced back toward the highway, where several cars were parked, their occupants staring at the house. "The patrol captain could have done it," he went on. "It's a pretty mess when men of our distinction have to go chasing around the Galaxy just to satisfy old Kegor's whims about his Biological Museum."

"His Imperial Majesty," Skarn said sternly, "does not have whims."

Dork, being a native of the outlying planet of Huzz, was given to displaying a lack of respect for His Imperial Majesty. He also displayed a lack of respect for Skarn

— motivated, of course, by jealousy over the fact that Skarn's professorship at the Royal University was vastly superior to the one Dork held on Huzz. Dork was competent enough, though, in his way, and praise be to the Great Kom, the Assignment shouldn't take long.

"I never heard of this Rule of the Door on Huzz," Dork said.

"It seems to be unknown to the outlying planets," Skarn replied. "But then there had been no reason for its use for so long that it was almost forgotten even on the Mother Planet. It seems to have been invoked only once, and that during the Great Kom's lifetime."

THEY entered the house and crossed the expanse of living room. Dork gave the Door a disrespectful kick. "Built precisely to the Great Kom's specifications, I suppose."

"Precisely," Skarn said.

"Well, you said the servants will be here tomorrow. Maybe one of them will blunder through it and then we can go home."

Skarn smiled. "It is not quite that simple. The qualifications are rather restrictive, you know."

"I have read the content of the Rule," Dork said haughtily. "Do you imagine for one moment that these barbarians possess such qualities as love and wisdom and generosity?"

"Yes," said Skarn. "Yes, I do."

"Anyway, that's not *our* problem. The Door will decide."

"True," Skarn said. "But there is a problem. The Great Kom designed the Door for the inhabitants of a world that is unknown to us. These — ah — barbarians may have an entirely different mental make-up. That would mean that we would have to adapt the Door to them, and I must confess that I don't see how to go about it. Some of the mechanism is exceedingly strange."

"How do you know the Great Kom did not design the Door for the inhabitants of this world?"

Skarn blinked. "I suppose that is possible. I hadn't thought of it."

"Everything else is arranged?"

"Completely. We have only to throw the activating switch. The relay stations are set up and operating. Once the Door accepts a specimen, it is immediately transmitted all the way to the Royal Museum. It is sealed into a specimen bottle before it knows what's happened, and that's the end of it."

"How do you propose to go about adapting the Door?"

Skarn got out a package of cigarettes, fumbled awkwardly with a cigarette lighter and got one lit. He took a deep puff and went into a fit of coughing. Dork glared at him disdainfully, and Skarn ignored him. He found the taste abominable and the effect on his throat distressing, but the idea of blowing smoke from his mouth and nose in-

trigued him. He had seen a carpenter blowing smoke rings and he was determined to acquire that skill himself. He *would* acquire it, even if he had to transport a quantity of these odd objects back to the Royal University and spend the rest of his life span practicing.

"I don't know that the Door will have to be adapted," he said. "I only acknowledge that possibility. We must expose the Door to a large number of these creatures and study the reactions of the instruments. If the instruments react normally, we should be able to proceed. If not, perhaps suitable adjustments will occur to us."

Dork sneered. "And I suppose these creatures will willingly present themselves to us for study. We have only to issue an invitation and they will come and form a line in front of the Door."

"Something like that," Skarn agreed. "We merely announce an odd ceremony which these natives call 'open house.' It seems to be a well-established custom. I understand that a great many natives will respond eagerly."

"I suppose there's no harm in trying it," Dork said, a bit grudgingly.

JONATHAN SKARN'S open house was a tremendous social success. The entire population of Centertown and the surrounding territory attended. The wooded hill was packed with cars, the highway

was lined with parked cars, and the State Police had to call in reinforcements to keep the traffic moving.

Jonathan Skarn, eccentric old gentleman that he was, stationed himself in the front yard, greeted all the visitors warmly, and told them to go right in and make themselves at home. This they did, and after a rapacious assault on the heavily laden refreshment tables, they swarmed through the house.

Without exception, they emerged disappointed. The door to the upstairs was kept locked. The utilities room and the lavatory were, after all, just a utilities room and a lavatory. And the living room, for all its unusual size and expensive furnishings, was not, as a bright high school student remarked, anything to write home about.

Since the quaint Mr. Skarn remained outside, and since the servants were busily engaged in supplying the refreshment tables — without, however, neglecting to keep the upstairs door locked — the guests pried into all of the strange, empty closets, marveled at the thick doors, and congregated in large numbers around the center door that looked exactly like the others, but refused to open.

UPSTAIRS in the laboratory, Dork disgustedly watched their antics in a viewer, and kept a sharp eye on his busily recording instruments.

And at the end of the day, he announced to Skarn that they had collected sufficient data.

The last of the guests had departed, the servants had restored a semblance of order to the house and wearily headed homeward, and Skarn and Dork relaxed on hassocks in the laboratory and studied the information which drifted slowly across a wall screen.

"These creatures are little more than animals," Dork declared. "But then we might expect that, from their hideous patches of hair, and their odors, and the fact that they occasionally kill one another, individually or collectively. They hate, they are dominated by greed and jealousy, and I'd say they're totally lacking in wisdom. Most of all, they lust. It's thoroughly obnoxious. I didn't find a single creature that the Door would reject."

Skarn was attempting to smoke a cigar. The natural bluish tint to his face had deepened to a violent purple and he felt ill. He coughed out a cloud of smoke and regarded the cigar warily.

"Then our task should be a simple one," he said.

"You," Dork exclaimed, "are fully as disgusting as these natives! Must you do that?"

"It is important that we understand the ways of these creatures," Skarn said complacently.

"Surely we can understand without degrading ourselves!"

SKARN deposited the cigar in an ashtray. A touch of a button and it disappeared. The apparent ingenuity of the device, and its basic crudeness, delighted him.

"Whatever else these creatures may be," he said, "they are not simple." He reached for another cigar.

"I tested the Door this morning with the servants," said Dork.

Skarn whirled about quickly and dropped his cigar. "Without consulting me?"

"It rejected them. I've noticed how they will try to open it, now and then, perhaps thinking we may have left it unlocked. So, while they were arranging the food, I activated the Door. Both of them tried it."

"Of course," Skarn said scornfully. "Why do you think I had this house built? These creatures are intelligent. That means they are curious. Already the workmen have spread the word about my mysterious Door. There is not a single creature, young or old, who would not attempt to open it if he had a chance. But I want this understood—I am in charge of this Assignment. The Door is not to be activated except by my orders."

Dork's eyes gleamed hatred, but he gestured indifferently. "How many glims do we sit around waiting before you decide to use the Door?"

"We must proceed cautiously. If the Door had accepted one servant

with the other one present—"

"What does it matter? We can make our own departure as soon as we've found a specimen. We'll leave nothing that would reveal our origin."

"No," Skarn said. "We must not attract suspicion to ourselves. There must be no witnesses when the Door accepts a specimen. And we must wait a suitable period of time so that our departure will not be connected with the disappearance. These creatures may some day learn to transmit themselves. We do not want to leave the impression that they have enemies on other worlds. Those are stern orders from His Imperial Highness himself."

"So how do we proceed?"

Skarn unlocked his desk and removed a monumental stack of papers. He dropped it on the floor, restacked it when it toppled over, and regarded it wearily.

"I have located an oddly functioning organization which calls itself a *detective agency*. It is furnishing me with detailed reports on every inhabitant of Centertown and the entire surrounding countryside. We have only to go through the reports and ask ourselves, Is this creature humble? Is he wise? Is he the head of a family? And so on. We shall select the few who seem best-qualified and invite them, one at a time, to be our guests. Their curiosity will impel

them to try the Door. It will certainly accept one of them. We shall take action to divert suspicion from ourselves, and after a suitable waiting period, we shall dispose of our house and leave."

"It is well arranged," Dork said enviously. "But what a frightful bother just to capture a specimen for old Kegor!"

THE instruments of the Door—those Skarn and Dork were familiar with—reacted normally to the natives. Those with which they were not familiar reacted, normally or not, they could not say. They tested the transmitter relay, sending through a stray dog, a cat, and an assortment of live creatures that Skarn obtained from a neighboring farmer.

The Director of the Royal Museum reacted promptly. Relay working perfectly. All specimens received in excellent condition and already on display. His Imperial Majesty highly pleased. Now—where is the specimen of the intelligent creature?

Skarn advised the Director to expect it momentarily. He closed the Door and attached a small metal plate that advised, "*Push.*" He activated the Door and stood in front of it, listening to the purring of the instruments. He cautiously attempted to push it himself and found that it would not open. Everything was ready.

With Dork, he spent hours sifting through the stack of reports. Three-fourths were immediately eliminated—a figure that Skarn thought spoke well for these natives. The remaining fourth they studied, compared and debated. They reduced their list to a hundred names, to fifty, and finally to ten. Each of the ten they compared conscientiously with the maxims of the Great Kom. In the end, they had four names.

"I don't think this was necessary," Dork said. "But perhaps you are right. This may be the more efficient approach. Certainly the Door will accept any of these promptly."

Skarn nodded and shuffled the reports. He was learning to smoke a pipe. Already the effort had cost him five teeth, and new teeth had not yet grown in. His mouth pained him as he grimly clutched at the pipe stem. Whenever he used his hand to support the bowl, he burned himself. He bit down hard on the stem, winced at the pain, and carefully removed it. He attempted a smoke ring, but the smoke poured forth in a turbulent cloud.

He read through the four reports again. The Honorable Ernest Schwartz, Mayor of Centertown. Married. He and his wife hated each other devoutly. He had no children, no family dependent upon him. There were multitudi-

nous rumors about him, to be gleaned everywhere around Centertown. He was a liar. He was also a thief. He had betrayed the trust of his office repeatedly to enrich himself. He had betrayed his friends. He was greedy and evil. He held affection for no one. He had carried on affairs with the wives of his friends, and pushed his own wife into an affair for his political advantage. He seemed to bewitch the voters at election time.

Skarn frowned. Election time? He would have to investigate that. Whatever it meant, bewitching the voters seemed an immoral thing to do.

He turned to the next report. Sam White, Centertown Chief of Police. A bachelor, with no known relatives. He kept his job, it was said, by helping the mayor along with his crooked schemes. Some of his police officers called him a petty tyrant. He was adept at obtaining confessions. He had several times been accused of brutality toward prisoners.

Jim Adams, the Centertown drunk. He never worked, lived off his wife's meager earnings, and beat his family mercilessly, drunk or sober. Technically, he was the head of a family; actually, the family would be far better off without him.

Elmer Harley, a ne'er-do-well mechanic. A good mechanic, it was said, when he worked at it. He had

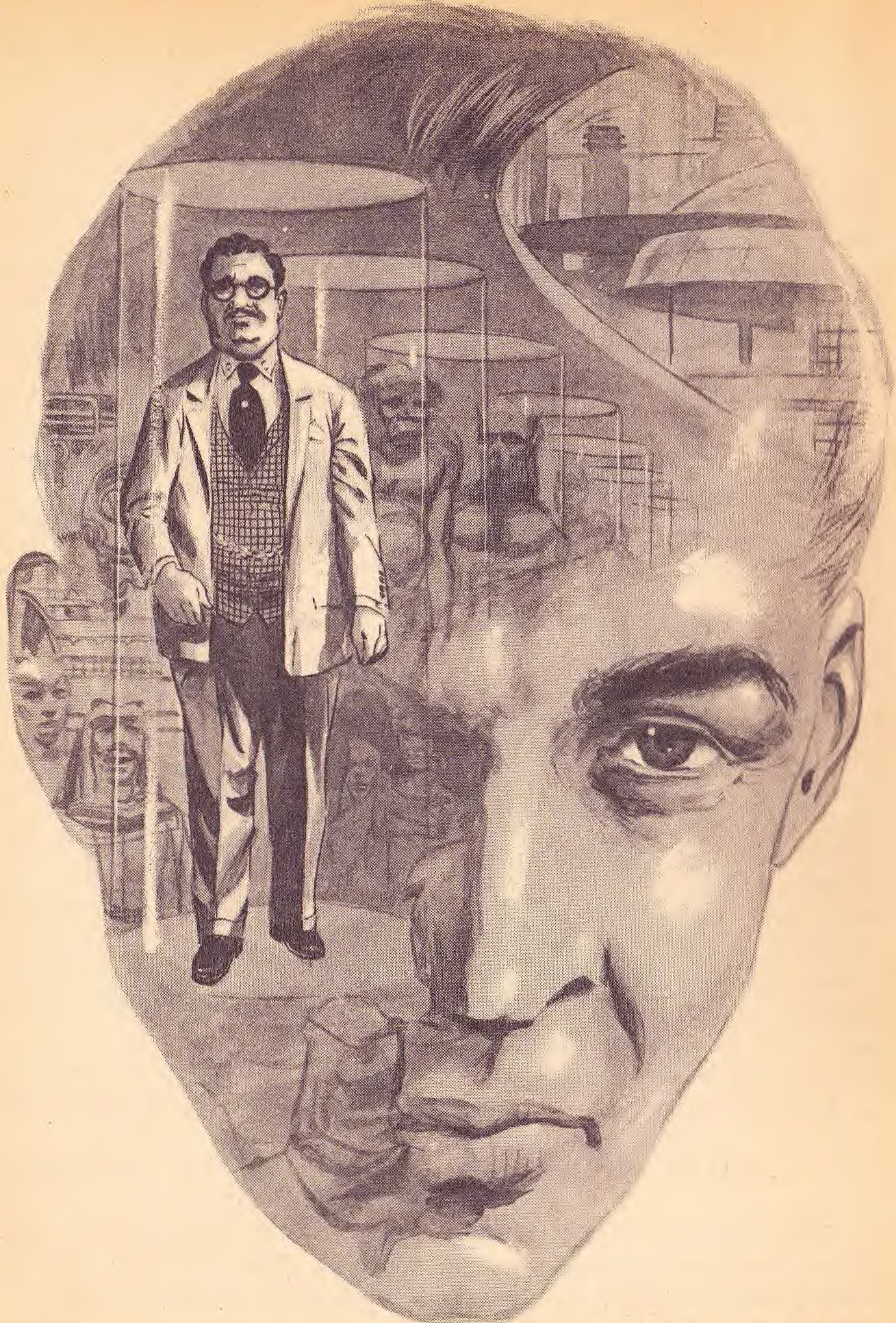
been convicted and served jail terms for several crimes. Terra Haute police had given him a standing order to stay out of town. Centertown tolerated him warily. He had no family and no friends. He worked when he could, if he felt like it, at either of Centertown's two garages. One of the proprietors liked him, it was said, because he was skilled at padding repair bills. That proprietor would have stood high on Skarn's list, were it not for the fact that he verifiedly loved his wife and children.

"When do we start?" Dork asked.

Skarn removed his pipe from his lips, and made another blundering attempt at a smoke ring. "Tomorrow. I'll ask this Mayor Schwartz to have dinner with me."

THE Honorable Ernest Schwartz arrived precisely on time, driving a flashy late-model car. Skarn met him at the door, shook his hand politely and ushered him into the living room. He took the mayor's coat, hat and cane to one of the closets, and turned to face his guest.

Schwartz was a big man, hearty, robust, his hair shining black despite his sixty years. He wore a mustache, trimmed meticulously. He stood looking about the living room, making commonplace compliments about the house, and his booming laugh filled the room.



Skarn regarded him strangely. He was seeing him, not as the Honorable Mayor of Centertown, Indiana, but as a specimen in sealed plastic in the Royal Museum. He was seeing him as one of a long row of bottled monstrosities that His Majesty's patrol ships had sent in from a multitude of planets. He was seeing His Majesty himself, cackling with delight, leading a noisy crowd of visiting dignitaries through the displays, stopping to point out Mayor Schwartz's ridiculous black hair, his mustache, his odd clothing, the sparkling cuff links, the gold chain that hung from his vest pocket.

It seemed wrong. Alien as it was, Skarn could sense the man's personal charm. He was friendly. He was obviously intelligent.

Skarn shrugged. The decision was not his to make. The Door would decide.

"Excuse me, please," he said. "I do not like to entertain with servants around. I'll bring the food myself. If you'll make yourself comfortable . . ."

"Why, certainly," Schwartz boomed. "Anything I can do to help?"

"No, thank you. I can manage nicely."

Skarn joined Dork in the laboratory and the two of them sat watching Schwartz in the viewer. Dork was jubilant.

"What a specimen he'll make,"

he gloated. "He's a big one. Do you suppose the specimen bottle will be big enough?"

"It held that thing they call a calf," Skarn said. "It should hold him."

Schwartz had taken a seat, but the reflected light from the sign on the Door caught his attention. He got calmly to his feet, crossed the room and read the label. The sign instructed him to push. He pushed. The Door resisted him firmly.

Dork exploded into an involved series of Huzzian oaths. "I would have sworn that there isn't a creature in our files better qualified than that one."

Skarn was thoughtful. "So it would seem. We must have made a mistake. Perhaps I can find out about it. If you care to watch . . ."

"Not me. His laugh gives me a headache. I'm going to bed."

Skarn lowered a serving cart and wheeled it into the living room. The mayor hurriedly got to his feet and helped him place the dishes on the table. They took their places and Skarn poured the cocktails.

The mayor raised his glass and said seriously, "May your residence in Centertown be a long and happy one."

"Thank you," Skarn said, feeling strangely moved.

Skarn uncovered the dishes, and the mayor sniffed hungrily. "I have a confession to make," he said.

"The real reason I jumped at this invitation was that I knew you'd hired Lucy Morgan."

Skarn, still struggling to accustom himself to the odd food these natives delighted in, said indifferently, "She seems capable."

"Man, she's marvelous! She used to work for me."

"Indeed? But then, if you liked the food she prepared, why didn't you keep her in your employment?"

The mayor scowled. "Women get funny notions. That was years ago. Lucy was just in her early twenties then, and my wife couldn't get it through her head that it was Lucy's cooking that I was interested in. You married yourself?"

"Not now," Skarn answered cautiously.

The mayor nodded and helped himself to steak. He concentrated on his food and talked a little between mouthfuls, mainly about Centertown. Skarn ate sparsely and tried to appear interested.

"I appreciate this," the mayor said suddenly. "Don't often get a quiet evening. The mayor's time belongs to everyone, day or night. Complaints about taxes, or the garbage service, or a hole in the street, or anything else. Each time I'm elected, I swear it'll be the last time. But here I am—ten straight terms I've served, and I'll probably go on until I die. Unless the voters decide to throw me out."

"I don't understand this matter of election," Skarn said. "We do not have it where I come from."

"I figured you were one of these refugees. Well, it seems simple to us, but I suppose it really isn't. Two or three men run for mayor, and the people vote, and the one that gets the most votes is elected. For two years. Then there's another election and the defeated candidates try again. Or maybe some new candidates. All it amounts to is that the people decide who runs things—those of them that take the trouble to vote."

"This voting is not required?"

"Purely voluntary. Sometimes the turnout isn't so hot."

SKARN considered this with a deep frown. "Wouldn't it be simpler just to have your—" he thought a moment and attempted a translation— "Director of Vocational Assignments appoint a mayor?"

"You're thinking of the city manager sort of thing," the mayor said. "Some places have them, but it's usually the city council that does the appointing. Then, of course, they usually have mayors, too."

Skarn squirmed uncomfortably and tried again. "Your Director of Vocational Assignments . . ."

"We haven't got anything like that."

Skarn formulated his question

carefully. "Who assigns the vocations?"

"Nobody. People work at what they want to, if they can do it, or at what they can get. It isn't like those Iron Curtain countries. If a man doesn't like his job, or his boss, or if he can get something better, he quits. The people run the show here. Sometimes they get the wool pulled over their eyes, but not for long."

"But you're going to be mayor until you die?"

"I suppose it'll work out that way, unless the people throw me out."

"When are you going to die?"

The mayor winced. "For God's sake!" he bellowed, and dissolved in laughter. "How do I know? I might get hit by a car on the way home, or drop dead from overeating. Or I might live to be a hundred. What a question!"

Skarn's thoughts whirled dizzily. The ideas were too much for him and he couldn't cope with them. He leaned back, staring at the mayor.

"I came up the hard way," the mayor said. "I made my money honestly and I went into politics honestly. I've kept my hands about as clean as a politician can keep them. Most of the people know that, which is why they vote for me. It's petty politics. I'm just a big frog in a small puddle here and I like it that way. I know

everyone personally and everyone knows me. Every time a new baby is born, I have a new boss. I'm as happy as the proud parents. I wouldn't have it any other way. But politics is a dirty business.

"Some people had it all their way before I was elected, and there are always others who'd like to have it their way. They've pulled every foul trick in the books. They've spread the damndest lies about me. My wife just can't take those things. We were happily married until I got elected mayor, and politics has ruined my marriage. I suppose anything a man accomplishes has its price, but if I had it to do over again, I don't know. Maybe I'd do it and maybe I wouldn't." He grinned. "I'll tell you what—I've got a book on the American system of government. I'll send it over. It explains things a lot better than I could tell them to you."

"I would appreciate that," Skarn said. "I would appreciate that very much."

CHIEF of Police Sam White arrived on foot to be Skarn's luncheon guest. A tall, slim, dignified man, his manner was soft-spoken and friendly. Skarn, on the basis of his report, had visualized him in some dismal cellar furiously lashing a stubborn prisoner. But the chief did not seem to belong in that role. Silvery-gray hair

crowned a wrinkled, sympathetic face. There was gentleness in his handshake, in his mannerisms, in his voice. Skarn began to visualize him in a different setting, in a sealed specimen bottle, and felt uncomfortable.

Skarn left him alone in the living room, and he and Dork watched anxiously from the laboratory. The chief shocked them thoroughly by disdaining to so much as try the Door. Later, Skarn lured him into making the attempt by asking his assistance in opening it. And the Door ignored him.

After lunch, they sat together on the sofa and talked and smoked, the chief describing his various interests with dry humor and Skarn listening intently. Did Skarn ever do any fishing? Or hunting?

"I'll take you with me the next time I go out," the chief said. "If you're interested, that is." Skarn was interested. "Ever play any chess?" Skarn did not know the game. "Drop in sometime when you're uptown. Things are usually pretty quiet around the police department of a town this size. I'll teach you."

The chief sent a smoke ring sailing across the room, and Skarn looked after it enviously. His own effort was a formless catastrophe.

When Skarn had stopped coughing, the chief said gently, "You go at it the wrong way. You can't make a smoke ring by blowing.

You have to do it with your mouth. Look."

Skarn watched, made the effort, and failed.

"Try it again," the chief suggested.

Skarn tried. His tenth effort was a definite smoke ring, wobbly, lopsided and short-lived, but still a ring. Skarn watched it with delight.

"Keep working at it," the chief said. "A little practice and you'll be an expert."

"I will," Skarn promised, and felt forever beholden to him.

Afterward, Dork stormed angrily about the laboratory, and Skarn restudied his reports. "The Detective Agency is in error," he announced. "Those men are not evil."

"Just how do we know the Detective Agency is not in error on all the reports?"

"We don't," Skarn said. "We will have to keep trying and find out for ourselves."

JIM ADAMS arrived early that evening, shabby, unshaven, torment in his eyes. He extended a trembling hand for Skarn to shake and whined, "I need a drink. Haven't had one today. Will you give me a drink?"

Skarn patted his back gently. "Of course. You can have all you want." He led the small, stumbling figure into the living room. "I keep it there—in the center closet. You

help yourself while I'm bringing the food down."

Adams pushed at the door. He hurled his weight against it. He shrieked and kicked and clawed and finally slumped to the floor and sobbed brokenly, and Skarn and Dork watched with sick disgust. And still the Door would not open.

Skarn went back down with the food and a supply of liquor. Adams ate little and drank much, drank himself into a reeking, slobbering intoxication, and finally passed out. Skarn worked over his unconscious body doubtfully and finally became alarmed enough to call Sam White.

"I have Jim Adams here for dinner," he said, "and—"

The chief chuckled. "Say no more. I'll send someone to collect him."

Adams' inert form was hauled away, and Skarn felt both relieved and puzzled.

"And just how do you account for the Door's rejecting *him*?" Dork demanded.

"I don't," Skarn said. "I can't account for it at all."

ELMER HARLEY thumped belligerently on the door, and he stood in the doorway and made no motion to accept Skarn's outstretched hand. "Mind telling me why you asked me out here?"

Skarn studied him gravely. He

was a muscular man of medium height. His dark hair was cut short. A fine scar line curved around his left cheek. His suit was worn, but freshly pressed. He was clean-shaven, neat-looking.

"I'm getting acquainted with some of the people of Centertown," Skarn said anxiously. "I hope that the invitation does not offend you."

Harley shrugged and held out his hand. "Just wondered. I heard you had Jim Adams up here."

"Why, yes, I did."

"And Sam White and the mayor?"

"Yes."

"And now me. It doesn't make sense to me."

Skarn smiled and escorted him into the living room. "How much of life does make sense?"

"You said a mouthful there."

"I'll bring the food down. The liquor is in the middle closet. Pick out what you'd like to have."

Harley nodded. A moment later, watching from the laboratory, Skarn and Dork saw him push once on the Door, hard, and then walk over to a sofa and sit down.

Dork stomped off to his bedroom, and Skarn returned to the living room with the serving cart.

"The door's locked," Harley said.

"It doesn't have a lock," Skarn replied. "I'm afraid it's stuck. I've been having trouble with it."

Harley jumped to his feet. "That so? I'll take another look."

He applied his shoulder to the door, and fell back a minute later, red-faced and breathing heavily. "It's really stuck. If you have some tools, I'll see what I can do about it."

"It's not that important," Skarn said.

But Harley had turned to the next closet. He pushed the thick door inward and stood staring at the hinges. "That's really slick. Slides the door back and then lets it open. Is the other door hung like this one?"

"Why, yes," Skarn said.

"Let's see what could have gone wrong."

HARLEY moved the door slowly, watching the action of the hinges. "Really slick," he said. "I don't see how anything could have gone wrong. Did you make these things yourself?"

"Yes," Skarn lied, beginning to feel embarrassed.

"You ought to patent them. You could make some money out of them."

"I'm afraid not many people use doors this thick."

"There are lots of places they might be used, with a hinge like that. Safes and refrigerators, things like that. If I was you, I'd patent it."

"Thank you. I'll consider it," Skarn said. "Our food will be getting cold."

Harley concentrated on his food and ate hungrily. Afterward, he settled himself in an overstuffed chair and talked about automobiles, and Skarn listened attentively and managed an occasional smoke ring.

Harley knew automobiles. He discussed them collectively and individually, their good points and weak points, their trade-in values, their economy or lack of it, where they were most likely to break down, and why.

"When you get around to buying a car," he said, "ask me. I can keep you from going wrong on a new one, and if it's a used one, I can tell you if you're getting your money's worth."

"I'll remember that," Skarn promised. "I've heard that you are a very good mechanic."

"I get by."

"There doesn't seem to be much for a good mechanic to do in Centertown."

"Not with the crooks that run the garages here," Harley said grimly.

Skarn studied him. He could not see him as the man the report described. He could not see him in a specimen bottle. "If you had your life to live over," he said, "is there anything you'd do differently?"

Harley smiled wistfully. "There isn't much I'd do the same."

"For example?"

"I pulled a couple of jobs when I was younger. Small stuff, but I did some time. Now, whenever anything happens, the police come looking for me. Ex-con, you know. I can't get a decent job. I should never have come back to Centertown, but my mother was here, and my getting into trouble nearly killed her. I couldn't make a home for her anywhere else, just coming out of the pen that way, so I came back here to look after her. She died four years ago and I'm still here. In a rut."

SKARN met Dork in the laboratory after Harley left.

"I heard," said Dork. "He loved his mother. That is considered an overpowering virtue among these creatures."

"Perhaps so," Skarn said.

"Invite one of them back," Dork urged earnestly. "Any one. We can put the door on manual and shove him through and have done with it. This planet won't be any worse than it is without him, and he certainly won't do any harm in old Kegor's museum. And we can go home."

"No," Skarn said firmly. "We must not contest the wisdom of the Great Kom."

"What are you going to do now?"

"I don't know. I must think the matter out carefully. Perhaps there are no evil creatures in this Center-

town. We may have to search elsewhere."

Dork got to his feet and paced the laboratory, his squat figure leaning forward at a tense angle, his eyes blazing angrily, his face a violent shade of blue. "All right. You are in charge. But I am going to continue to invite these creatures here and have them try the Door. You can't deny me that."

"No," Skarn agreed. "I see no objection to that. You may use the reports and invite anyone you like. If you don't succeed . . ."

"I shall succeed," Dork promised.

In the morning, there was a confidential message from the Prime Minister. Dork Diffack, the Prime Minister said, had sent an alarming report on Skarn's management of the Assignment. Skarn, according to the report, was deliberately avoiding the selection of a proper specimen and showing a suspicious proclivity for the ways of the natives. His Imperial Majesty was angry. It was ordered that Skarn forward a complete explanation and find the desired specimen without further delay.

Skarn sent off a report on Dork's treasonable suggestion that a specimen be obtained without the Door's approval. He installed a mental lock at the controls, so Dork would be unable to place the Door on manual operation without Skarn's consent.

Skarn walked down to Centertown and wandered in and out of the stores, making casual purchases and attempting to engage the clerks in conversation. They all knew him—he was certain that most of them had attended his open house—but they seemed strangely reserved in his presence.

THE initial topic of conversation was always the weather. Skarn could understand that a relatively primitive civilization which had not yet learned to control the weather might regard it with awe and frustration. But he could not understand why every individual seemed to take a personal responsibility for it being the kind of day it was.

"Nice day," a clerk would say.

"Oh, very," Skarn would concur. He would make his purchase and ask, "Do you know Jim Adams?"

"Who doesn't?" the clerk would say, and move on to the next customer.

"Do I know Chief White?" a shoeshine boy said. "I ain't no criminal!"

"What do I think of the mayor?" a waitress said. "I aim to vote for him. Another cup of coffee?"

"Why—ah—yes," Skarn said, and drank it, though it nauseated him.

The natives he had invited to his home had been friendly and talked freely with him. Those he encountered about Centertown were

friendly enough, if Skarn approached them first, but their restraint puzzled him. What could bring about such a fundamental difference in their behavior? It was a matter for psychological speculation.

Skarn ate a revolting lunch at the drugstore and then cautiously descended the worn steps to the basement of the rickety city hall, where Police Headquarters were located. Sam White was the only one in the small headquarters room. He sat with his chair tilted back, his feet on his desk.

He nodded casually and pointed at a chair. "What brings you to the law?"

"I am making a social call," Skarn said politely.

"Make yourself comfortable. Not many people come down here unless they have something to beef about."

"I suppose you meet more than your share of evil people," Skarn said.

"I wouldn't say that. I really don't believe there is such a thing as an evil person. We get some bad ones now and then, but there isn't a one of them that couldn't have been straightened out if he'd been caught before he got too far out of line."

"Do you really believe that?"

The chief smiled. "There is so much good in the worst of us, and so much bad in the best of us, that

it hardly behooves any of us to talk about the rest of us. I might have written that myself, if someone hadn't beaten me to it."

"Do you *really* believe that?" Skarn persisted.

"Of course I do. Sometimes it's the only thing that keeps me going."

"And yet you sometimes find it necessary to use violence on your prisoners."

CHIEF White's feet hit the floor with a crash. "Nobody in this department uses violence on anybody!"

"But I heard . . ."

"Sure, you heard. You hear that about police anywhere. That's a crook's last line of defense. Catch him good and the only thing he can do is try to blame something on the police. We have to be pretty damned careful to keep them from getting away with it."

"I see," Skarn said.

The chief returned his feet to his desk, and Skarn lit a cigarette and sent a perfect smoke ring floating across the room. The chief whistled.

"You've got that down pat. What did I tell you?"

"Your prediction was profoundly accurate."

"I'll make another prediction. I think you'll like chess. Want to learn?"

Skarn watched curiously as the chief got out the board and set the oddly shaped pieces on it.

"This," the chief said, holding up a black one, "is a knight."

Skarn reached for a white one, the same shape. "And I suppose this is a day."

The chief flapped his arms and howled, and Skarn laughed with him, wondering why.

It was dusk when Skarn walked slowly back up the hill. Dork was entertaining a guest—a female guest. Skarn slipped up the stairway unnoticed and flipped on the living room viewer. He had carefully avoided the native females in his own tests. Their psychology seemed infinitely more complex and their motives obscured in fantastic ways.

He watched while Dork talked with his female specimen. Dork gave her money, and she turned and walked resolutely over to the Door and shoved against it. It failed to open. A violent argument followed and she flung the money at Dork and left.

Dork did not offer to discuss the incident and Skarn did not ask him about it.

THE stores were not yet open when Skarn reached the downtown part of Centertown the next morning. He walked the length of Main Street and back again, moving slowly, finding an increasing number of faces which were familiar to him. He started back up Main Street a second time, and in front of the Center Bar he met Jim Adams.

Adams squinted uncertainly at Skarn and passed a trembling hand across his face. "Oh, it's you," he said.

"Jonathan Skarn. Nice morning, isn't it?" Skarn found that he slipped easily into the native patterns of conversation. "This place will open in a few minutes. May I buy you a drink?"

Adams said nothing. They were the first customers, and Skarn followed Adams up to the bar, paid for the drink he ordered, and watched as he downed it greedily.

"Another?" Skarn asked.

Adams wiped his mouth with the back of his hand and stared blankly at him. Skarn nodded at the bartender, who refilled the glass. Adams stood slumped over the bar. Suddenly he clutched at the glass and flung the contents into Skarn's face.

"I'm killing myself fast enough," he said bitterly. "I don't need your help."

Skarn accepted a paper napkin from the bartender and wiped his face dry. "Let's sit down," he said. "Is there something you'd rather have? Food, maybe?"

He led Adams over to a booth.

Adams squinted at him again, this time incredulous. "You ain't sore?"

"I think," Skarn said, "that you are a sick man."

Adams buried his face in his arms and sobbed. "When I ain't drunk,

I'm a louse, because I want to get drunk. And when I'm drunk, I'm a louse."

"Isn't there anything you can do about it?"

"In this town? Big cities got Alcoholics Anonymous and things like that. Here there ain't nothing. Doc Winslow says go in the hospital and get cured. But that costs money, and I ain't got money. Won't ever have any, unless I get cured, and I can't get cured unless I have some. So I drink myself to death. Who the hell cares?"

Skarn got to his feet and took a firm grip on Adam's arm. "Let's go and talk to your Doctor Winslow," he said.

ADAMS listened dumbly while Dr. Winslow struggled to describe hospital expenses in terms acceptable to Skarn. The doctor made a series of long-distance telephone calls. He jovially slapped Adams on the back. He shook hands with Skarn. And, at noon, Skarn was at the railroad station seeing that a somewhat bewildered Adams got aboard the train that would take him to a hospital.

Mrs. Adams was there, a slight, pale-faced woman, and with her were the seven Adams children. Mrs. Adams sank to her knees before Skarn and clutched his legs tearfully. Skarn gently raised her to her feet.

"It's quite all right," he said. "Jim

is going to come back cured. Aren't you, Jim?"

"I sure am," Adams promised.

"He's been a sick man, but he's going to be all right. And then your worries will be over."

"God bless you," Mrs. Adams sobbed.

Skarn patted her shoulder awkwardly. "If you need anything in the meantime," he heard himself say, "don't hesitate to call on me."

After the train pulled out, Skarn walked back to the Centertown Bank and arranged to have a weekly allowance paid to the Adams family. Coming out of the bank, he met Chief of Police White.

The chief's hand clamped uncomfortably on Skarn's. "I heard about what you did," he said. "Word gets around fast in a small town like this."

They walked together along Main Street. The president of the bank stopped to shake hands with Skarn. Faces familiar and unfamiliar smiled and spoke pleasantly. Good afternoon, Mr. Skarn. Nice day, isn't it, Mr. Skarn? You're looking well today, Mr. Skarn. In one block, Skarn was offered seven free beers, three dinners and a lodge membership.

"WHAT happened?" he asked the chief.

"Jim Adams has been kind of a town problem for years. Everyone felt responsible for him, but nobody

knew what to do about him. You solved the problem at one crack. That's what happened."

They paused in front of the city hall and the chief gripped Skarn's hand again. "These small towns are peculiar places," he said. "A person can come from outside and live in one for years and never make the grade. And then sometimes—well, you're one of us now."

Mayor Schwartz lumbered up, breathing heavily. "I chased you a block," he panted. "Didn't you hear me calling you?"

"No, I didn't," Skarn said. "I'm very sorry if—"

"Heard what you did for Jim Adams. Wonder why some of the rest of us didn't think of it. Look, we've got a vacancy on the planning commission and I think you're just the man for it. I've talked with the council members, and if it's all right with you, we'll make it official at the meeting tonight."

"I'm afraid I don't understand," Skarn confessed.

"It's nothing complicated. The commission meets once a month and mostly just talks. But you're a newcomer and you might see things the rest of us have been overlooking for years, like Jim Adams. Why not give it a try? You can always resign if it's too much of an imposition."

Skarn looked at the chief. The chief nodded gravely.

"Why, yes," Skarn said. "I'd be honored."

HE FOUND Elmer Harley at work in Merrel's Garage. Harley slammed down a wrench and went over and washed up before he offered to shake hands warmly with Skarn.

"Naw, nobody will care if I have a beer with you," he answered Skarn's question.

He followed Skarn across the street to the Center Bar. They sat down in a booth and the bartender brought two beers. Skarn took a sip and grimaced.

"I heard what you did for Jim Adams," Harley said. "And—hell, it was a fine thing to do."

"Do you think he will reform?" Skarn asked.

"With half a chance, I'm sure he will."

"Then it was time someone did something about it."

Harley nodded slowly and sipped his beer. "Jim never was a bad guy. He was weak and he got himself trapped. You thinking of reforming me?"

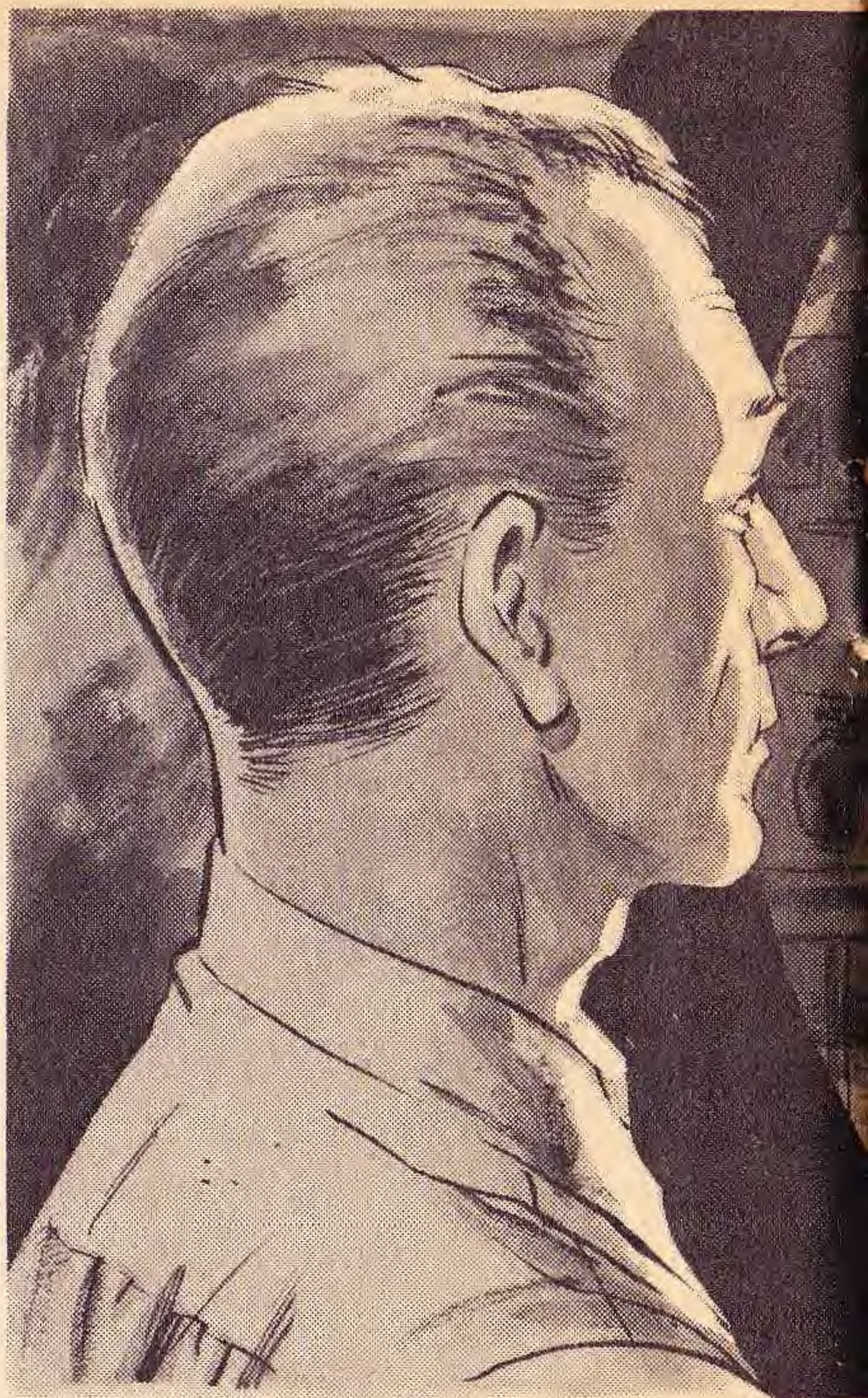
"I *had* given it some thought," Skarn conceded.

"I suppose it's time somebody did something about that, too."

"I was thinking of opening a garage," Skarn said. "An honest garage. Do you think there's a place for one here?"

"There's a place for an honest garage anywhere."

"Do you think you could run one for me?"



Harley half rose to his feet. "Try me!"

"You look around and see if you can find a place for it and make an estimate of what you'd need."

"Right away," Harley said. "As soon as I tell Merrel to go to hell."

The house was dark when Skarn returned, dark upstairs and down. He did not bother with lights. He moved easily through the darkness to the laboratory, heard Dork's quick breathing, and settled on a hassock near him. Dork preferred



the darkness. He did not like the confusing alteration of night and day. On his native planet, it was always either dark or never dark, and Dork claimed that the revolutions of this primitive planet endangered his health.

They sat in the gloom in silence. After a while, Skarn lit a cigarette, and Dork winced at the flash of light.

"Do you have a specimen ready?" he demanded.

"No," Skarn said. "Do you have

one?"

"I heard about what you've been doing. I've made a full report. I have a reply. You are relieved of the Assignment. You are to report back to the Mother Planet immediately — without delay."

Skarn smiled. "And you are to complete the Assignment, no doubt."

"On personal orders from His Imperial Majesty."

"Following the Rule of the Door explicitly, I suppose."

DORK'S laugh was hideous. "The Great Kom won't know it. What His Imperial Majesty doesn't know won't hurt him. What you say won't matter, because no one will believe you. Your handling of the Assignment has been a disgrace, Skarn Skukarn. I very much doubt that you will be allowed to fulfill your span of living."

"Would you mind telling me how you plan to obtain a specimen?" asked Skarn.

"I will invite your specimens back. Three of them, since you have sent one away. I'll send them all through and get away from this cursed planet."

"The Door won't accept them. I doubt if it will accept any resident of Centertown."

"What the Door decides won't matter. I'll operate it on manual."

"I have the controls on mental lock. I won't release them to you."

"You'll release them," Dork said. "There are worse penalties than death, you know."

Skarn sat lost in thought. Life on the Mother Planet, and the queer ways it contrasted with life on this alien world. The young wife he had loved, and the exalted minister who had taken her from him. The work he had left unfinished in his laboratory at the Royal University. The time left of his life span. He tried to imagine how it must be for these natives, who left their life spans to chance and disease, instead of mak-

ing them a matter of law.

He thought, and compared, and made his decision. "These natives are friends of mine. Skarn Skukarn does not betray a friend."

"I will ask for new equipment," Dork said.

"Regardless of my status, I believe I can make known the reason for your request. I don't think it will be granted."

Dork leaped to his feet. "What was that?" He activated the viewer and his hand closed on Skarn's arm. "Someone is downstairs."

Skarn adjusted the viewer and flooded the living room with invisible light.

"We have a visitor," Dork said. "Skarn, we're being robbed!"

They watched the shabby figure fumble awkwardly through the darkness, feeling his way forward, clumsily moving around the furniture. A handkerchief covered the face below the eyes.

"He's heard about our Door," Skarn said. "He probably thinks we keep riches behind it."

Dork clapped his hands and said gleefully, "This resolves our problem. The Door will certainly accept a specimen that approaches it in an evil act."

"His evil act may have a noble purpose," Skarn said.

THE intruder blundered his way across the room, lunged into one of the closets, came out again and

moved along the wall toward the Door. Dork sucked his breath in noisily and released it in a spasm of profanity when the Door failed to move.

"Set the Door on manual," he said. "I'll send him through. No one knows he's here. No one will miss him. We can get off the damnable world immediately."

"The Rule of the Door . . ."

"Damn the Rule! He's an evil man, isn't he? This planet will be a better place without him, won't it?"

"I don't know."

"Do you know this native? Do you claim him for a friend?"

"No," Skarn said. "I don't know him."

"Set the Door on manual," Dork ordered. There was sneering authority in his voice. He swaggered away.

Skarn sank back wearily. The Great Kom had been wiser than he had ever imagined to devise such a door. Perhaps it was never meant to open. Who could say, after all, that the Imperial Majesty of that ancient time had actually obtained an intelligent specimen by way of the Door? Perhaps in his immortal wisdom the Great Kom had devised a plan that would prevent the Imperial Majesty from obtaining a specimen. And now this—this circumventing of the Door. It was a terrible thing.

Let Dork do what he could. Skarn would not do it. He could not.

In the room below, the intruder

was assaulting the Door with his shoulder. The lights came on, and Dork entered the room. He raised his hands in mock fear as the thief pointed a gun at him.

"Certainly I'll open it for you," he said. "Come and help me push."

Dork moved toward the door, with the thief close behind him. He paused, half turned to say something, and suddenly the Door jerked open. Dork was sucked through in an instant, and the Door slammed in the face of the startled thief who beat upon it angrily.

SKARN jerked to his feet and stood there, fists clenched, his mind paralyzed with shock. At length he controlled himself and visualized what was happening, knowing that while he thought about it, it had already happened—the body of Dork Diffack whipped at many times the speed of light from relay station to relay station across space, and sealed instantaneously into a specimen bottle at the Royal Museum, to the colossal consternation of the attendants. They would recognize him immediately, of course. But it would be too late.

The secret of the Door came to Skarn clearly, and he humbly bowed to the memory of the Great Kom. The door *had* been attuned to the characteristics of one people, and one people only, and those people had been the inhabitants of Dork's planet of Huzz, discovered back in

those remote times when ships of the Empire were first creeping outward from the Mother Planet. The Door had been designed so that only a creature like Dork would be accepted, a creature devoid of love and friendship and kindness, an evil creature, caught in an act of evil, entangled in his own sinister plot against another intelligent being. The wisdom of the Great Kom was absolute.

Skarn acted quickly. He dared not return to the Mother Planet. But he liked these natives. He liked their world. He admired the freedom they enjoyed and the blend of good and bad in their characters. He had many years to live, by the way these natives measured time. He had the store of precious metals furnished him for his assignment. He had the house. He had his laboratory, small as it was. He had—yes, in Centertown he had friends.

He opened a panel in the wall and closed the switch that sent the transmitter hurtling back through space. In succession, the relay stations would fold in on each other and all return to the Mother Planet.

Perhaps His Imperial Majesty would send an expedition for him; perhaps not. It didn't matter. Only Dork knew exactly where Skarn was located on this planet, and Dork's knowledge was safe for an eternity. So was Skarn.

He picked up the telephone and called Sam White. "I have been reflecting upon that game which you call chess. I believe the next time I can defeat you. Is it too late to try tonight?"

"Hell, no!" said the chief. "Come on over."

"Shortly," Skarn said. "I have a small matter to attend to here."

Skarn met the thief as he came out of the central closet. He paralyzed him with a nerve gun, took the threatening revolver and released him. The young eyes that stared at him over the handkerchief were terrified.

"What happened to that guy? That closet—it's empty!"

"Of course it's empty," Skarn said. "That's why the door opened so easily. Now tell me, why is it that you need money?"

—LLOYD BIGGLE, JR.

LEARN TO PREDICT YOUR FUTURE: Are you helplessly drifting with the tides of life?

You can learn to control your future.

Individual processing Intensives.

Write **REGISTRAR OF SCIENTOLOGY**

Hubbard Guidance Center,

1812 19th Street, N. W.

Washington, D. C.

THE BIG BOUNCE

By WALTER S. TEVIS

*Seeing it in action, anybody
would quaver in alarm: What
hath Farnsworth overwrought?*

Illustrated by JOHNSON

“LET me show you something,” Farnsworth said. He set his near-empty drink—a Bacardi martini — on the mantel and waddled out of the room toward the basement.

I sat in my big leather chair, feeling very peaceful with the world, watching the fire. Whatever Farnsworth would have to show tonight would be far more entertaining than watching T.V.—my custom on other evenings. Farnsworth,

with his four labs in the house and his very tricky mind, never failed to provide my best night of the week.

When he returned, after a moment, he had with him a small box, about three inches square. He held this carefully in one hand and stood by the fireplace dramatically—or as dramatically as a very small, very fat man with pink cheeks can stand by a fireplace of the sort that seems to demand a

big man with tweeds, pipe and, perhaps, a saber wound.

Anyway, he held the box dramatically and he said, "Last week, I was playing around in the chem lab, trying to make a new kind of rubber eraser. Did quite well with the other drafting equipment, you know, especially the dimensional curve and the photosensitive ink. Well, I approached the job by trying for a material that would absorb graphite without abrading paper."

I was a little disappointed with this; it sounded pretty tame. But I said, "How did it come out?"

HE screwed his pudgy face up thoughtfully. "Synthesized the material, all right, and it seems to work, but the interesting thing is that it has a certain—ah—secondary property that would make it quite awkward to use. Interesting property, though. Unique, I am inclined to believe."

This began to sound more like it. "And what property is that?" I poured myself a shot of straight rum from the bottle sitting on the table beside me. I did not like straight rum, but I preferred it to Farnsworth's rather imaginative cocktails.

"I'll show you, John," he said. He opened the box and I could see that it was packed with some kind of batting. He fished in this and withdrew a gray ball about the

size of a golfball and set the box on the mantel.

"And that's the — eraser?" I asked.

"Yes," he said. Then he squatted down, held the ball about a half-inch from the floor, dropped it.

It bounced, naturally enough. Then it bounced again. And again. Only this was not natural, for on the second bounce the ball went higher in the air than on the first, and on the third bounce higher still. After a half minute, my eyes were bugging out and the little ball was bouncing four feet in the air and going higher each time.

I grabbed my glass. "What the hell!" I said.

Farnsworth caught the ball in a pudgy hand and held it. He was smiling a little sheepishly. "Interesting effect, isn't it?"

"Now wait a minute," I said, beginning to think about it. "What's the gimmick? What kind of motor do you have in that thing?"

His eyes were wide and a little hurt. "No gimmick, John. None at all. Just a very peculiar molecular structure."

"Structure!" I said. "Bouncing balls just don't pick up energy out of nowhere, I don't care how their molecules are put together. And you don't get energy out without putting energy in."

"Oh," he said, "that's the really interesting thing. Of course you're

right; energy *does* go into the ball. Here, I'll show you."

He let the ball drop again and it began bouncing, higher and higher, until it was hitting the ceiling. Farnsworth reached out to catch it, but he fumbled and the thing glanced off his hand, hit the mantelpiece and zipped across the room. It banged into the far wall, ricocheted, banked off three other walls, picking up speed all the time.

When it whizzed by me like a rifle bullet, I began to get worried, but it hit against one of the heavy draperies by the window and this damped its motion enough so that it fell to the floor.

IT started bouncing again immediately, but Farnsworth scrambled across the room and grabbed it. He was perspiring a little and he began instantly to transfer the ball from one hand to another and back again as if it were hot.

"Here," he said, and handed it to me.

I almost dropped it.

"It's like a ball of ice!" I said. "Have you been keeping it in the refrigerator?"

"No. As a matter of fact, it was at room temperature a few minutes ago."

"Now wait a minute," I said. "I only teach physics in high school, but I know better than that.

Moving around in warm air doesn't make anything cold except by evaporation."

"Well, there's your input and output, John," he said. "The ball lost heat and took on motion. Simple conversion."

My jaw must have dropped to my waist. "Do you mean that that little thing is converting heat to kinetic energy?"

"Apparently."

"But that's impossible!"

He was beginning to smile thoughtfully. The ball was not as cold now as it had been and I was holding it in my lap.

"A steam engine does it," he said, "and a steam turbine. Of course, they're not very efficient."

"They work mechanically, too, and only because water expands when it turns to steam."

"This seems to do it differently," he said, sipping thoughtfully at his dark-brown martini. "I don't know exactly how—maybe something piezo-electric about the way its molecules slide about. I ran some tests—measured its impact energy in foot pounds and compared that with the heat loss in BTUs. Seemed to be about 98 per cent efficient, as close as I could tell. Apparently it converts heat into bounce very well. Interesting, isn't it?"

"*Interesting?*" I almost came flying out of my chair. My mind was beginning to spin like crazy. "If

you're not pulling my leg with this thing, Farnsworth, you've got something by the tail there that's just a little bit bigger than the discovery of fire."

He blushed modestly. "I'd rather thought that myself," he admitted.

"Good Lord, look at the heat that's available!" I said, getting really excited now.

FARNSWORTH was still smiling, very pleased with himself. "I suppose you could put this thing in a box, with convection fins, and let it bounce around inside—"

"I'm way ahead of you," I said. "But that wouldn't work. All your kinetic energy would go right back to heat, on impact—and eventually that little ball would build up enough speed to blast its way through any box you could build."

"Then how would you work it?"

"Well," I said, choking down the rest of my rum, "you'd seal the ball in a big steel cylinder, attach the cylinder to a crankshaft and flywheel, give the thing a shake to start the ball bouncing back and forth, and let it run like a gasoline engine or something. It would get all the heat it needed from the air in a normal room. Mount the apparatus in your house and it would pump your water, operate a generator and keep you cool at the same time!"

I sat down again, shakily, and began pouring myself another drink.

Farnsworth had taken the ball from me and was carefully putting it back in its padded box. He was visibly showing excitement, too; I could see that his cheeks were ruddier and his eyes even brighter than normal. "But what if you want the cooling and don't have any work to be done?"

"Simple," I said. "You just let the machine turn a flywheel or lift weights and drop them, or something like that, outside your house. You have an air intake inside. And if, in the winter, you don't want to lose heat, you just mount the thing in an outside building, attach it to your generator and use the power to do whatever you want—heat your house, say. There's plenty of heat in the outside air even in December."

"John," said Farnsworth, "you are very ingenious. It might work."

"Of course it'll work." Pictures were beginning to light up in my head. "And don't you realize that this is the answer to the solar power problem? Why, mirrors and selenium are, at best, ten per cent efficient! Think of big pumping stations on the Sahara! All that heat, all that need for power, for irrigation!" I paused a moment for effect. "Farnsworth, this can change the very shape of the Earth!"

Farnsworth seemed to be lost in thought. Finally he looked at me strangely and said, "Perhaps we had better try to build a model."

I WAS so excited by the thing that I couldn't sleep that night. I kept dreaming of power stations, ocean liners, even automobiles, being operated by balls bouncing back and forth in cylinders.

I even worked out a spaceship in my mind, a bullet-shaped affair with a huge rubber ball on its end, gyroscopes to keep it oriented properly, the ball serving as solution to that biggest of missile-engineering problems, excess heat. You'd build a huge concrete launching field, supported all the way down to bedrock, hop in the ship and start bouncing. Of course it would be kind of a rough ride...

In the morning, I called my superintendent and told him to get a substitute for the rest of the week; I was going to be busy.

Then I started working in the machine shop in Farnsworth's basement, trying to turn out a working model of a device that, by means of a crankshaft, oleo dampers and a reciprocating cylinder, would pick up some of that random kinetic energy from the bouncing ball and do something useful with it, like turning a drive shaft. I was just working out a convection-and-air pump system

for circulating hot air around the ball when Farnsworth came in.

He had tucked carefully under his arm a sphere of about the size of a basketball and, if he had made it to my specifications, weighing thirty-five pounds. He had a worried frown on his forehead.

"It looks good," I said. "What's the trouble?"

"There seems to be a slight hitch," he said. "I've been testing for conductivity. It seems to be quite low."

"That's what I'm working on now. It's just a mechanical problem of pumping enough warm air back to the ball. We can do it with no more than a twenty per cent efficiency loss. In an engine, that's nothing."

"Maybe you're right. But this material conducts heat even less than rubber does."

"The little ball yesterday didn't seem to have any trouble," I said.

"Naturally not. It had had plenty of time to warm up before I started it. And its mass-surface area relationship was pretty low—the larger you make a sphere, of course, the more mass inside in proportion to the outside area."

"You're right, but I think we can whip it. We may have to honeycomb the ball and have part of the work the machine does operate a big hot air pump; but we can work it out."

ALL that day, I worked with lathe, milling machine and hacksaw. After clamping the new big ball securely to a workbench, Farnsworth pitched in to help me. But we weren't able to finish by nightfall and Farnsworth turned his spare bedroom over to me for the night. I was too tired to go home.

And too tired to sleep soundly, too. Farnsworth lived on the edge of San Francisco, by a big truck by-pass, and almost all night I wrestled with the pillow and sheets, listening half-consciously to those heavy trucks rumbling by, and in my mind, always, that little gray ball, bouncing and bouncing and bouncing . . .

At daybreak, I came abruptly fully awake with the sound of crashing echoing in my ears, a battering sound that seemed to come from the basement. I grabbed my coat and pants, rushed out of the room, almost knocked over Farnsworth, who was struggling to get his shoes on out in the hall, and we scrambled down the two flights of stairs together.

The place was a chaos, battered and bashed equipment everywhere, and on the floor, overturned against the far wall, the table that the ball had been clamped to. The ball itself was gone.

I had not been fully asleep all night, and the sight of that mess, and what it meant, jolted me im-

mediately awake. Something, probably a heavy truck, had started a tiny oscillation in that ball. And the ball had been heavy enough to start the table bouncing with it until, by dancing that table around the room, it had literally torn the clamp off and shaken itself free. What had happened afterward was obvious, with the ball building up velocity with every successive bounce.

But where was the ball now?

Suddenly Farnsworth cried out hoarsely, "Look!" and I followed his outstretched, pudgy finger to where, at one side of the basement, a window had been broken open—a small window, but plenty big enough for something the size of a basketball to crash through it.

There was a little weak light coming from outdoors. And then I saw the ball. It was in Farnsworth's back yard, bouncing a little sluggishly on the grass. The grass would damp it, hold it back, until we could get to it. Unless . . .

I took off up the basement steps like a streak. Just beyond the back yard, I had caught a glimpse of something that frightened me. A few yards from where I had seen the ball was the edge of the big six-lane highway, a broad ribbon of smooth, hard concrete.

I got through the house to the back porch, rushed out and was in the back yard just in time to



see the ball take its first bounce onto the concrete. I watched it, fascinated, when it hit—after the soft, energy absorbing turf, the concrete was like a springboard. Immediately the ball flew high in the air. I was running across the yard toward it, praying under my breath, *Fall on that grass next time.*

It hit before I got to it, and right on the concrete again, and this time I saw it go straight up at least fifty feet.

MY mind was suddenly full of thoughts of dragging mattresses from the house, or making a net or something to stop that hurtling thirty-five pounds; but I stood where I was, unable to move, and saw it come down again on the highway. It went up a hundred feet. And down again on the concrete, about fifteen feet further down the road. In the direction of the city.

That time it was two hundred feet, and when it hit again, it made a thud that you could have heard for a quarter of a mile. I could practically see it flatten out on the road before it took off upward again, at twice the speed it had hit at.

Suddenly generating an idea, I whirled and ran back to Farnsworth's house. He was standing in the yard now, shivering from the morning air, looking at me like a

little lost and badly scared child.

"Where are your car keys?" I almost shouted at him.

"In my pocket."

"Come on!"

I took him by the arm and half dragged him to the carport. I got the keys from him, started the car, and by mangling about seven traffic laws and three prize rosebushes, managed to get on the highway, facing in the direction that the ball was heading.

"Look," I said, trying to drive down the road and search for the ball at the same time. "It's risky, but if I can get the car under it and we can hop out in time, it should crash through the roof. That ought to slow it down enough for us to nab it."

"But—what about my car?" Farnsworth bleated.

"What about that first building—or first person—it hits in San Francisco?"

"Oh," he said. "Hadn't thought of that."

I slowed the car and stuck my head out the window. It was lighter now, but no sign of the ball. "If it happens to get to town—any town, for that matter—it'll be falling from about ten or twenty miles. Or forty."

"Maybe it'll go high enough first so that it'll burn. Like a meteor."

"No chance," I said. "Built-in cooling system, remember?"

Farnsworth formed his mouth

into an "Oh" and exactly at that moment there was a resounding *thump* and I saw the ball hit in a field, maybe twenty yards from the edge of the road, and take off again. This time it didn't seem to double its velocity, and I figured the ground was soft enough to hold it back — but it wasn't slowing down either, not with a bounce factor of better than two to one.

WITHOUT watching for it to go up, I drove as quickly as I could off the road and over—carrying part of a wire fence with me—to where it had hit. There was no mistaking it; there was a depression about three feet deep, like a small crater.

I jumped out of the car and stared up. It took me a few seconds to spot it, over my head. One side caught by the pale and slanting morning sunlight, it was only a bright diminishing speck.

The car motor was running and I waited until the ball disappeared for a moment and then reappeared. I watched for another couple of seconds until I felt I could make a decent guess on its direction, holstered at Farnsworth to get out of the car—it had just occurred to me that there was no use risking his life, too—dove in and drove a hundred yards or so to the spot I had anticipated.

I stuck my head out the window and up. The ball was the size

of an egg now. I adjusted the car's position, jumped out and ran for my life.

It hit instantly after—about sixty feet from the car. And at the same time, it occurred to me that what I was trying to do was completely impossible. Better to hope that the ball hit a pond, or bounced out to sea, or landed in a sand dune. All we could do would be to follow, and if it ever was damped down enough, grab it.

It had hit soft ground and didn't double its height that time, but it had still gone higher. It was out of sight for almost a lifelong minute.

And then—incredibly rotten luck—it came down, with an ear-shattering thwack, on the concrete highway again. I had seen it hit, and instantly afterward I saw a crack as wide as a finger open along the entire width of the road. And the ball had flown back up like a rocket.

My God, I was thinking, now it means business. And on the next bounce . . .

It seemed like an incredibly long time that we craned our necks, Farnsworth and I, watching for it to reappear in the sky. And when it finally did, we could hardly follow it. It whistled like a bomb and we saw the gray streak come plummeting to Earth almost a quarter of a mile away from where we were standing.

But we didn't see it go back up again.

For a moment, we stared at each other silently. Then Farnsworth almost whispered, "Perhaps it's landed in a pond."

"Or in the world's biggest cow-pile," I said. "Come on!"

We could have met our deaths by rock salt and buckshot that night, if the farmer who owned that field had been home. We tore up everything we came to getting across it—including cabbages and rhubarb. But we had to search for ten minutes, and even then we didn't find the ball.

What we found was a hole in the ground that could have been a small-scale meteor crater. It was a good twenty feet deep. But at the bottom, no ball.

I STARED wildly at it for a full minute before I focused my eyes enough to see, at the bottom, a thousand little gray fragments.

And immediately it came to both of us at the same time. A poor conductor, the ball had used up all its available heat on that final impact. Like a golfball that has been dipped in liquid air and dropped, it had smashed into thin splinters.

The hole had sloping sides and

I scrambled down in it and picked up one of the pieces, using my handkerchief, folded—there was no telling just how cold it would be.

It was the stuff, all right. And colder than an icicle.

I climbed out. "Let's go home," I said.

Farnsworth looked at me thoughtfully. Then he sort of cocked his head to one side and asked, "What do you suppose will happen when those pieces thaw?"

I stared at him. I began to think of a thousand tiny slivers whizzing around erratically, ricocheting off buildings, in downtown San Francisco and in twenty counties, and no matter what they hit, moving and accelerating as long as there was any heat in the air to give them energy.

And then I saw a tool shed, on the other side of the pasture from us.

But Farnsworth was ahead of me, waddling along, puffing. He got the shovels out and handed one to me.

We didn't say a word, neither of us, for hours. It takes a long time to fill a hole twenty feet deep—especially when you're shoveling very, very carefully and packing down the dirt very, very hard.

—WALTER S. TEVIS

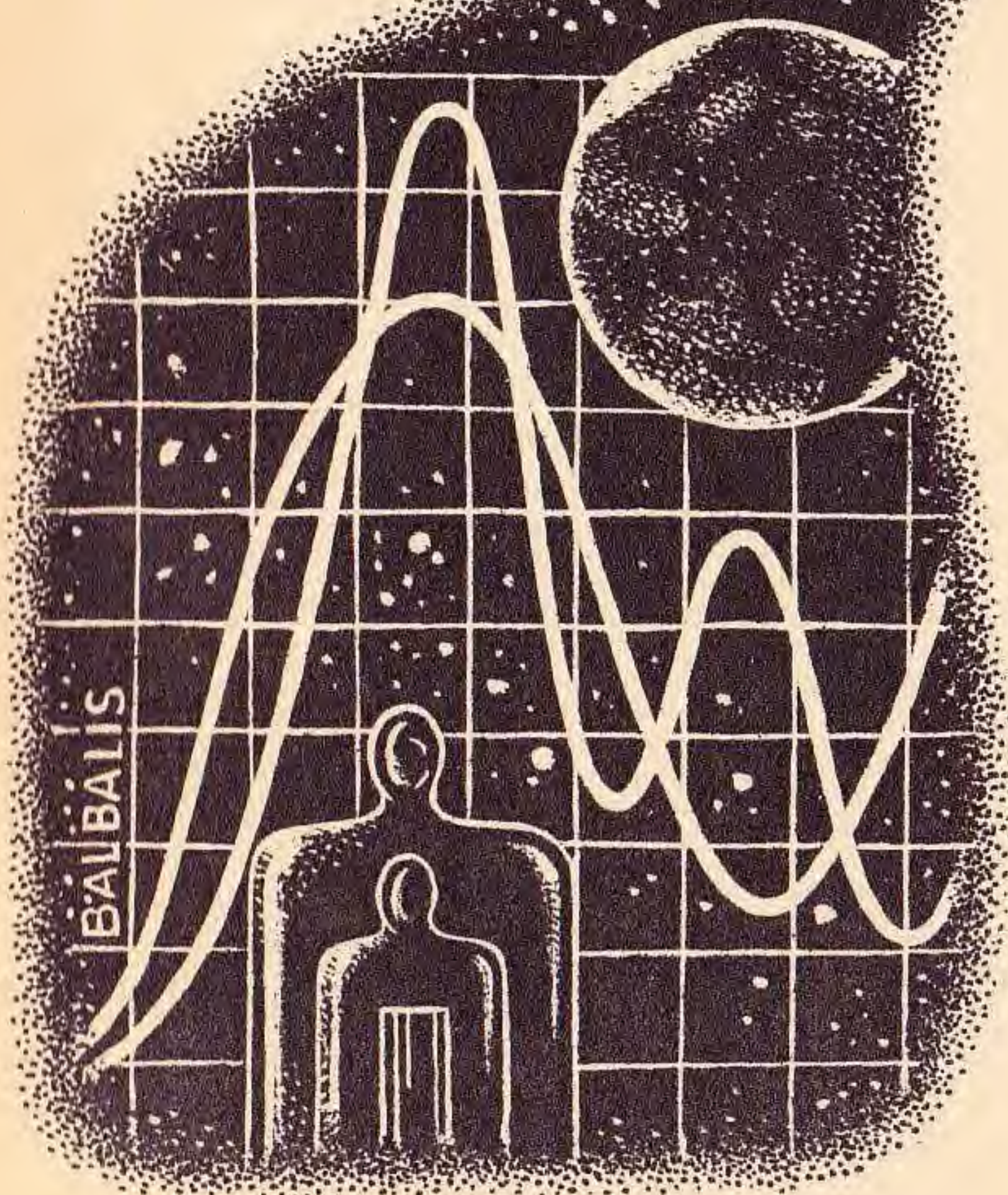


**for
your
information**



BY WILLY LEY
**A CENTURY OF
NEW ANIMALS**

TO begin somewhere, let us consider an utterance of a man who was just about the most famous naturalist of his time, namely Georges Léopold Chrétien Frédéric Dagobert, Baron de Cuvier. He is called both the Father of Paleontology and the Father of Comparative Anatomy, and during his lifetime he was Titular Professor at the *Jardin des Plantes* (as the Paris Zoo is still misleadingly called), Chancellor



of the University of Paris and a high government official of cabinet rank.

Georges Cuvier died 126 years ago, in 1832. Shortly before his death—say, around 1830—he said in the course of a lecture that the naturalists of the future would have to concentrate on extinct animals, since no new discoveries of large living animals were to be expected any more.

One might say that he was statistically right, even if he was wrong otherwise.

In the years since his death, several thousand species of extinct animals have been dug up and described, while only a few dozen large living animals have been discovered. And at first it must even have seemed as if Cuvier might be literally right, for two full decades went by without a noteworthy discovery. Then the “spell” was broken by the English traveler Hodgson who, in 1850, reported a new large mammal from Tibet.

It was the Takin (*Budorcas taxicolor*), also called the Gnu Antelope and best described as a very large and heavy mountain goat of dull brown color. It is rarely seen in zoological gardens, and if a garden does acquire one, the keeper is likely to be unhappy, for the Takin exudes a penetrating and offensive smell every minute of its life.

SOME five years later, there came three more discoveries, all connected with the name of Père (Father) Armand David. The home of all three is China and they were vaguely known to the Chinese.

One of them was called *bei-shun*, which simply means “white bear” and which was said to live “in the mountains” — this being Asia, that term can cover a very large number of square miles. When Father David finally got hold of one, it turned out (Fig. 1) to be the Giant Panda (*Ailuropoda melanoleucus*); its cousin, the Lesser Panda, had been known for about half a century and was usually called Himalaya Raccoon.

The second of Father David’s discoveries was a monkey. Its picture was known, because Chinese artists had painted it on vases and similar items. But it had always been thought to be just an artistic convention; a monkey with such a wildly colored fur and such a “little Lulu” nose obviously could not exist. Father David proved with skins and skeletons that it did and the scientific name became *Rhinopithecus roxellanae*, often referred to as the roxellana monkey or, sometimes, snow monkey.

The third discovery was even more unusual. Father David knew, like everybody else, about a walled-in Imperial Hunting Park near Peking. He also knew that

no Chinese emperor had actually hunted there for centuries and that it was strictly forbidden to enter it. So one day he climbed the wall to see the animals inside.

Among herds of well-known game animals, Father David saw a large stag; he was sure that this animal was new to science. The Chinese called it *sse-pu-hsiang* which means "not like four" and is supposed to express the idea that the animal does *not* look like a stag, *not* like a horse, *not* like a cow and *not* like a goat. Another and simpler name, which became known later, is Milu.

Father David obtained antlers and skin — probably by bribing the guards; he never said how he did it — and sent them to Paris. A gift of live specimens was then arranged through diplomatic channels and Alphonse Milne-Edwards in Paris gave the scientific name *Elaphurus davidianus*, popularly known as Père David's Deer (Fig. 2).

The subsequent history of Père David's Deer is one of those stories one would not believe if one read it in a novel. Père David's Deer existed *only* in the Imperial Hunting Park; it had become extinct everywhere else centuries ago. Then, in 1895, there was a flood and a famine and the hungry people ate all the animals in the Imperial Park. But a few specimens of Père David's Deer had been

bought by the Duke of Bedford. They have turned into a large herd, so now the animal lives only in England (plus a few of the bigger zoological gardens).

AT the same time when Père David's Deer was described in Paris, another new animal was described in England in the Proceedings of the Zoological Society. It was an antelope, the so-called Lesser Koodoo (*Strepsiceros imberbis*) which had lived unnoticed in East Africa.

Then there was a hiatus lasting just about a decade, until 1878, when another Englishman by the name of Waller reported a new gazelle from Somaliland. It was a rather small animal as far as the body went, but it had long legs, almost like those of a giraffe, and a fairly long neck. The scientific name at first became *Gazella walleri*, which was later changed into *Litocranius* ("small skull") *walleri*.

One year later, the zoological world became even more excited by a report from Russia. A Russian traveler, Nikolai Mikhailovitch Przevalski, reported that he had found a wild horse in Central Asia. Not a wild ass, which were known to exist in quite a number of places, not a feral horse (this is the term used for the wild offspring of animals), but actually a wild horse which not only had

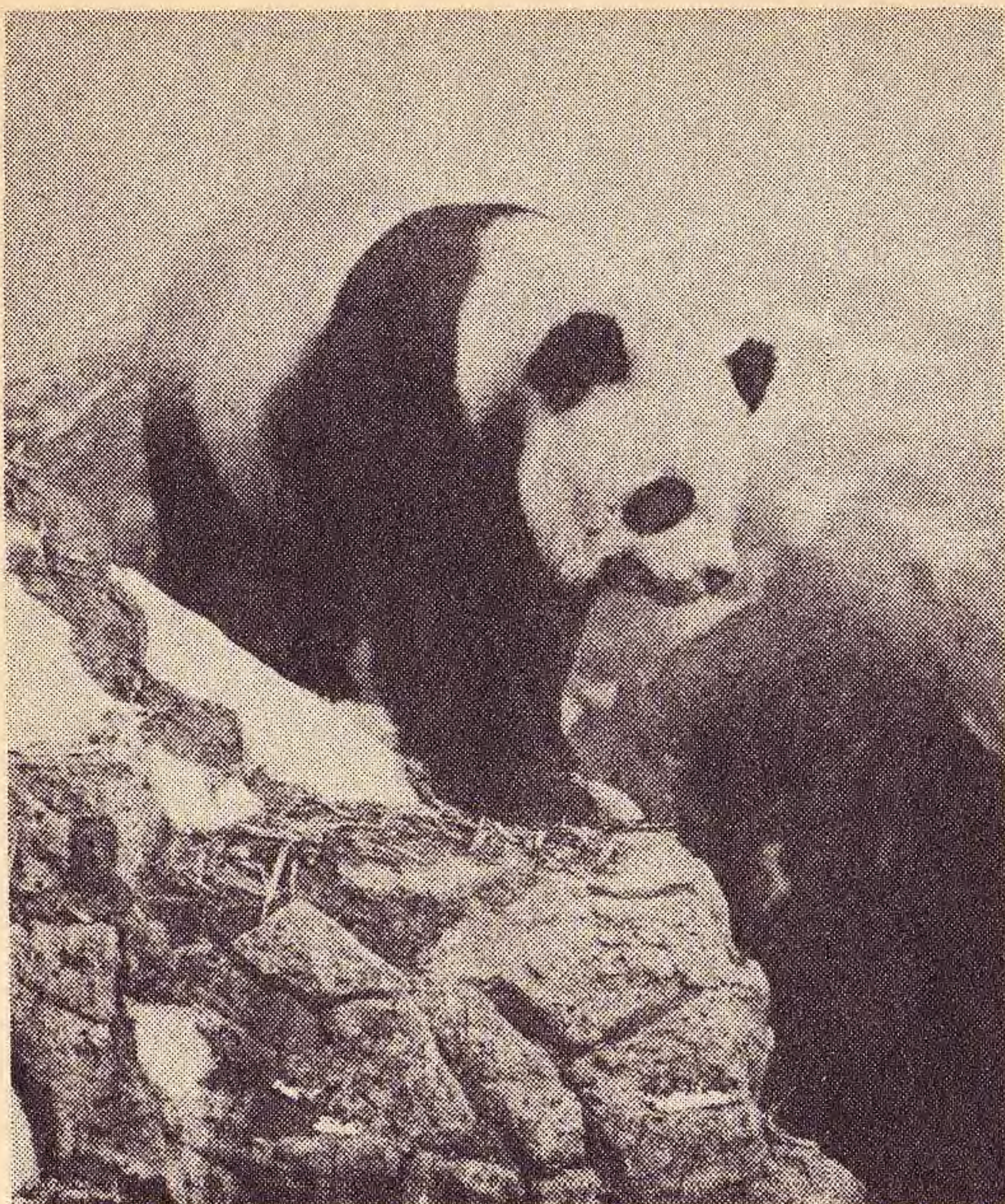


Fig. 1: The Giant Panda
Courtesy: Amer. Museum
of Nat. History

never been domesticated but had not even been known to exist. It was called *Equus przewalski* to the chagrin of all zoologists outside Russia, who have to learn to pronounce it as *Pshe-vall-skee*, with the accent on the *vall*.

Another wild horse entered the zoological scene only a few years later, in 1882. It was not really meant to be a discovery; it was intended as an international goodwill token. His Majesty, the Emperor Menelik of Ethiopia, gave it as a present to the president of the French republic, whose name was Grévy. It turned out to be an unknown species of zebra, the

largest of all living zebras, now known as Grevy's Zebra, or *Dolichohippus grevyi*.

In 1888, there came a shout of surprise from Australia. The discovery was physically small, but important. Australia is the continent of the marsupials or pouched mammals, but most of them were large enough and numerous enough to be quickly discovered. However, one had stayed unnoticed underfoot — literally. It was *Notoryctes typhlops*, the marsupial mole. Strangely enough, its fur is of a golden color of remarkable beauty.

The ostrich is, as everybody

Fig. 2: The first picture of Père David's Deer, published in France in 1866. The drawing was probably by a Chinese artist



knows, the largest living bird, occurring normally in northern Africa. Its scientific name is *Struthio camelus*. In 1890, a German living in East Africa sent a live ostrich to the zoological garden in Berlin, with a note explaining that it had been caught on Massai territory. After a while, the experts felt that there was something somehow wrong and soon they put their finger on the "wrongness."

The African ostrich normally has a red or reddish neck and legs. That is the northern variety. The so-called Somali ostrich has a bluish-grey neck and legs. This one, though not of the northern variety,

had a red neck and red legs. Moreover, the lower half of the long neck was covered with feathers, though normally the whole neck is nearly naked. It was a new species and was named Massai Ostrich, or *Struthio massaicus*.

ONE new bird seems to deserve another, and four years later a new and very large eaglelike bird was reported from the Philippines. It was said to eat mainly monkeys, which accounts for the scientific name of *Pithecophaga* (monkey-eater) *jefferyi*. (The name of the discoverer was Jeffery.)



Fig. 3: *Caenolestes obscurus*, a survivor from the early days of the mammals

Drawing by Olga Ley

Hard on the heels of the news of the monkey-eating bird came a chance discovery, made by the experts on board of the yacht of the then Prince of Monaco. The yacht was near the Azores, where local fishermen had just harpooned one of the toothed whales. The animal was too large to be handled by the fishing boats and the yacht offered its services for towing it ashore.

The whale was not quite dead and suddenly vomited the contents of its stomach, consisting mostly of torn pieces of large octopi. Among these pieces there was a damaged specimen of a seven-foot octopus that was completely unknown to science. It was named

Lepidoteuthis grimaldii and none like it has been seen or caught since.

I am trying to tell of these discoveries in chronological order, but there are some difficulties.

There is a small mammal in Ecuador which measures $9\frac{1}{2}$ inches on the average, of which $4\frac{1}{2}$ inches are tail. It was first mentioned by R. F. Tomes in 1860 and he wrote that this would be a shrew if it did not have a rudimentary pouch. The trouble was that he had an immature specimen. In 1895, another specimen, adult this time, was found and described by the English zoologist Oldfield Thomas. It was a New World marsupial, closely related to ex-

tinct forms from Patagonia, and also related to other fossils which Georges Cuvier had found near Paris. Its name became *Caenolestes* (Fig. 3) which translates as "new robber," with reference to the old robbers of Cuvier.

If *Caenolestes* failed to impress the layman, the next discovery, made in 1900, certainly did. It was the Okapi, a short-necked relative of the giraffe which lives in the Congo Forest. Henry Stanley had heard of it some eight years earlier; the natives talked about a zebra in the forest. Zoologists snorted, for zebras do not go into the forest. By 1900, when pieces of skin came to London, it seemed that they had been wrong and that this particular zebra did.

Two years later, skulls and complete skins became available and the zoologists were proved right

again—the animal was *not* a zebra and is not even striped all over. It had just happened that the striped portions of a cut-up skin had become known first.

The discovery of the Okapi (Fig. 4) was no doubt the greatest surprise since Father Armand David's finds. And Africa kept surprising zoologists.

First, in 1903, the Congo Giraffe came to light. It is only a "race," not a species, but still one should not think that a giraffe could have been overlooked for so long. One year later, a very large package arrived in London from Captain Meinertzhagen of His Majesty's East African Rifles, stationed in Kenya District. It contained an imperfect large black pelt and a perfect skull from another specimen. Quickly dubbed the Giant Forest Hog, it was new to science

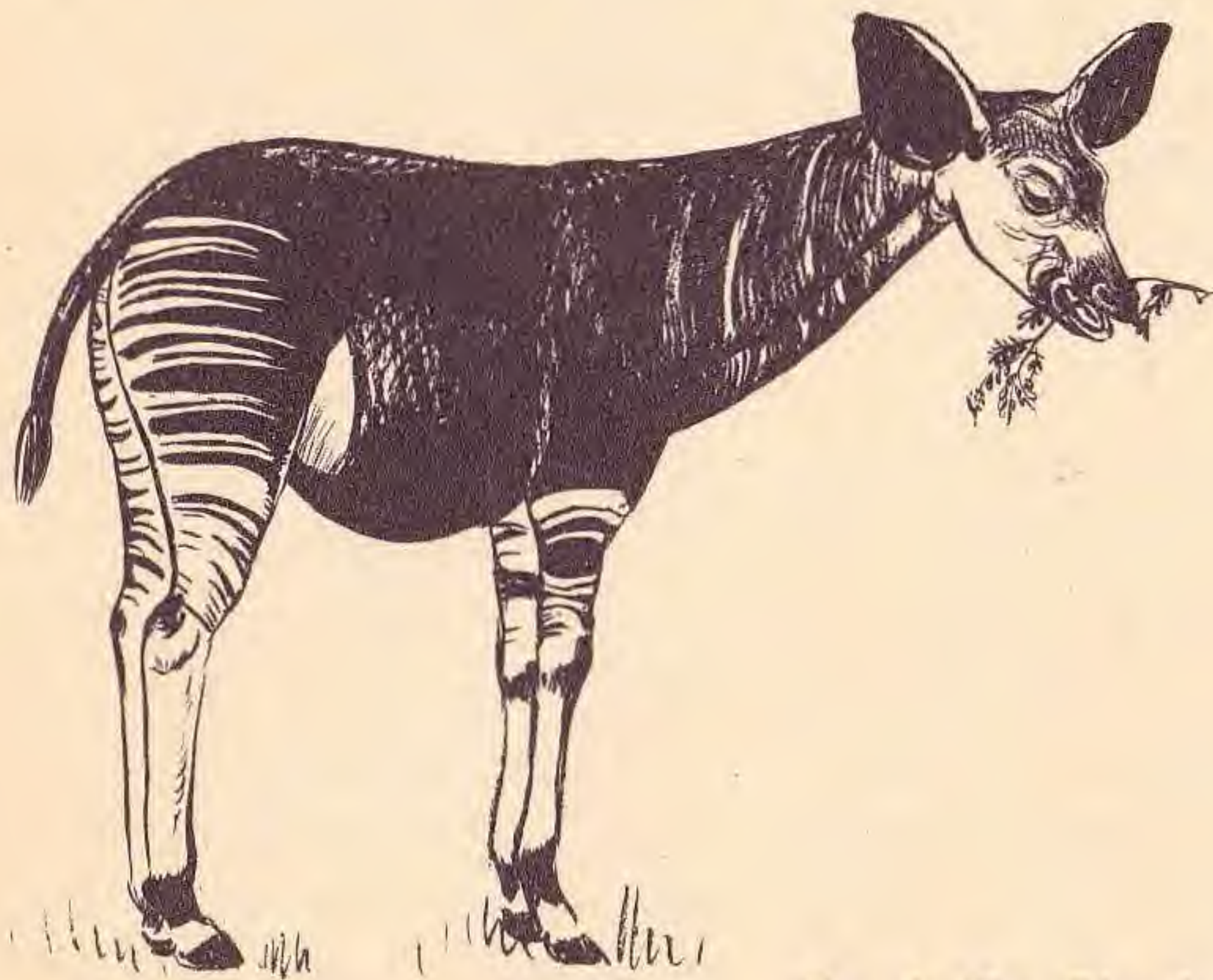


Fig. 4: The Okapi

Drawing by Olga Ley

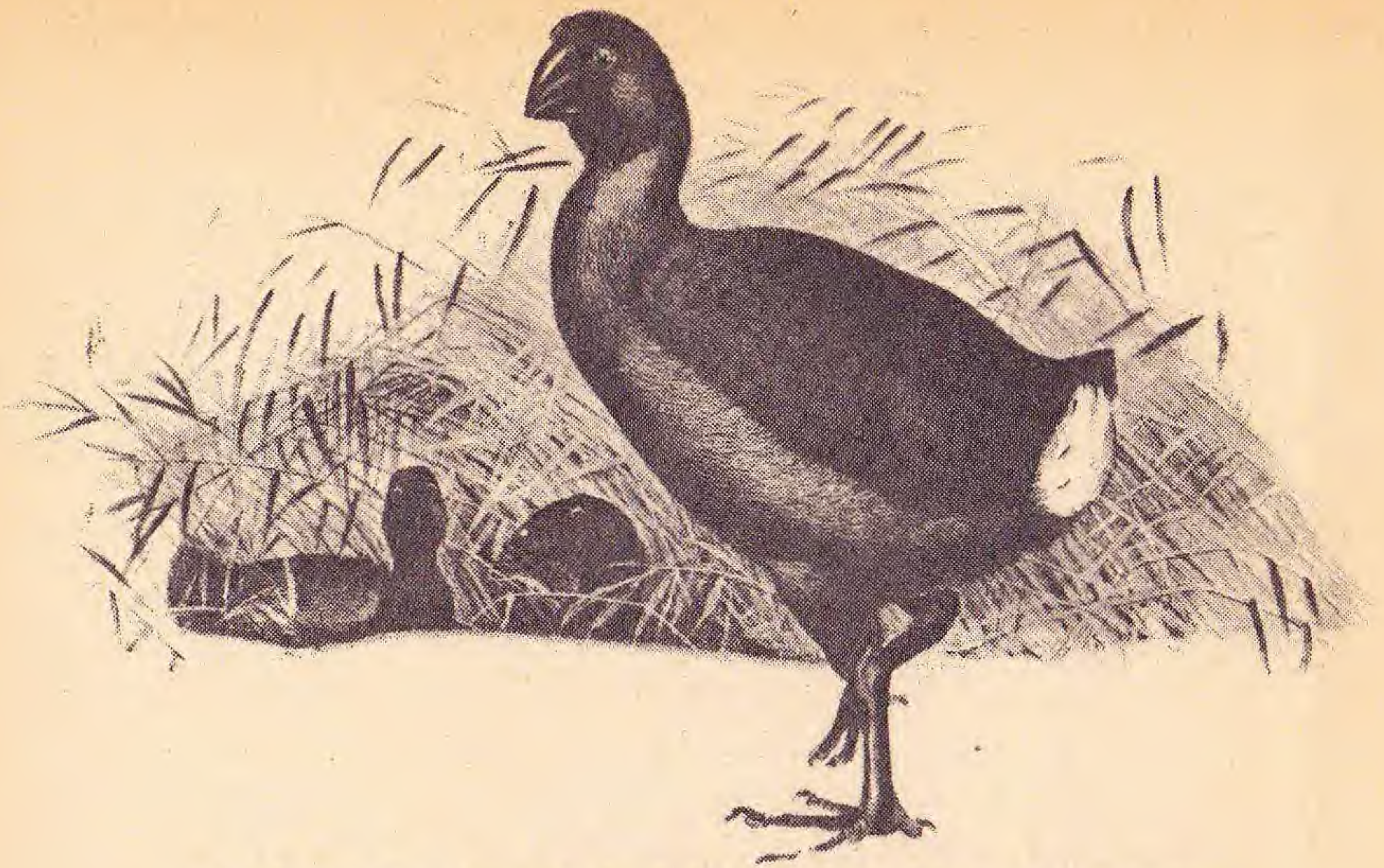


Fig. 5: The first picture of the Takahē, published in London in 1850

(though natives had told Stanley about it) and merely the very largest species of wild pig in existence. Its scientific name became *Hylochoerus meinertzhageni*. A grown male measures six feet in length.

In 1910, one more antelope was discovered by Buxton in the southernmost portion of Ethiopia. It was named *Nyala buxtoni*.

DURING the same year, a rumor from the Far East was confirmed. On the small island of Komodo, situated between the somewhat larger islands of Sumbawa and Flores, "dragons" had been rumored to live. In a manner of speaking, the rumor was true — it was *Varanus komodoensis*,

the largest of the generally large monitor lizards. The biggest actually measured was 11 feet 8 inches long, but the natives said that larger ones had occasionally been taken away.

In the last year of the First World War, another unknown mammal was reported from China for the first time, but because of war and revolution, not much attention was paid to it at the time. It was a dolphin, but one living in rivers. Its name became *Lipotes vexillifer* and even now not much is known about it.

There followed a comparatively long pause of nineteen years, but then the year 1937 brought two discoveries, one from Asia and the other from Africa.

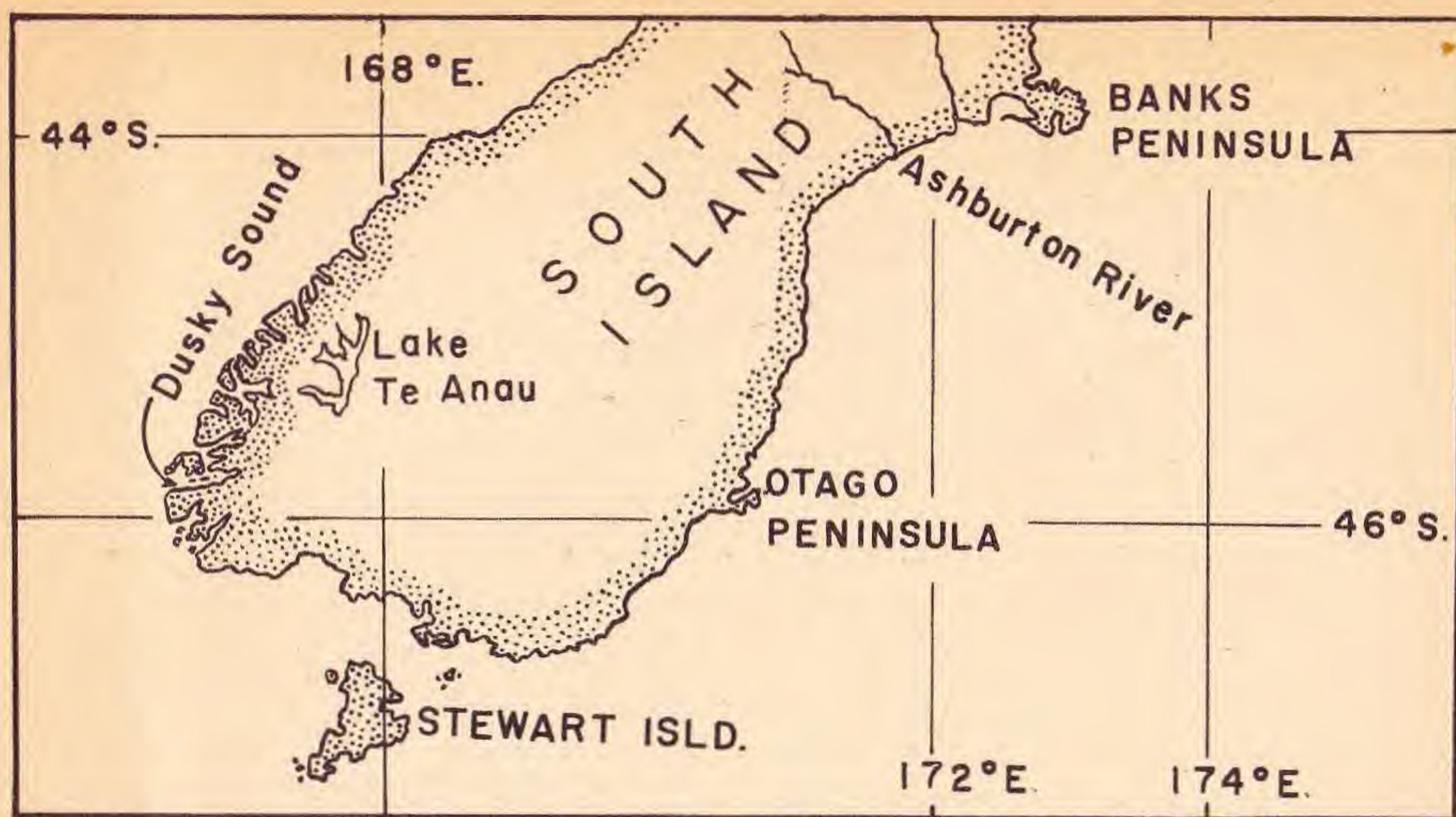


Fig. 6: The southern half of the South Island of New Zealand

The Asian discovery was nothing less than a species of wild cattle, the Kouprey (*Bos sauveli*), which had somehow managed to live unnoticed in Indochina; probably often seen, sometimes shot, but unrecognized as a scientific novelty.

The African discovery was a bird and it was by no means a chance discovery. One of the "okapi expeditions" had brought, among other things, a bundle of bird feathers acquired from natives of the Congo region by trade.

This bundle of feathers reached New York in 1915 and Dr. James P. Chapin of the American Museum of Natural History sorted them out at leisure. He could determine the origin of all the feathers but one, a rather large one which just would not fit any known bird.

Years later, in 1936, Dr. Chapin found in the Congo Museum in Tervueren (near Brussels) in Belgium two stuffed birds. They were labeled "young peacocks," but actually they were unknowns. However, they bore feathers like the one that could not be classified. Next year, Dr. Chapin shot the bird in the Congo district. It was the Congo peacock (*Afropavo congensis*), which had been familiar to the natives under the name of *itundu*.

The Congo peacock is not even especially rare!

If the Congo peacock was discovered by a systematic search, the next discovery was pure chance. It was the fish now known as *Latimeria*, a very strange fish indeed, a so-called *coelacanth* which was rather well known as a fossil.

But everybody was convinced that this type had become extinct some 50 million years ago. Then one was caught by a fishing vessel off the South African East Coast in December 1938. It remained the only one for many years and the blame for the failure to find more was squarely put on the Second World War.

Now we know that the zoologists had looked in the wrong area. The first *Latimeria* had been caught off East London, which is a considerable distance to the south of Madagascar. For reasons not known, it had strayed nearly 2000 miles from its home grounds, which are the waters around the Comores Islands between the African coast and the *northern* tip of Madagascar.

EVEN around the Comores Islands, this fish from the distant geological past is not frequent. Still, it is frequent enough for the islanders to have coined a special name for it — *conbessa*. Since this is French territory, the whole *Latimeria* case is in French hands, which are indubitably capable but, one suspects, a bit slow. When I wrote a column on *Latimeria* in *GALAXY* (May 1956), it was stated that a four-volume monograph on this fish was forthcoming. It still is.

Though *Latimeria* might be said to be the most important discovery

of that century of new animals, it is not the end of the story.

In 1950, the German zoologist Dr. Ingo Krumbiegel identified a new animal from its skin. It is a mountain wolf living in the South American Andes. Presumably the people who shot it — one South American dealer is said to have had four skins at one time—thought these were feral dogs. It has yet to be taken alive.

And two birds were “re-discovered,” which is to say that they were found to be still alive, even though the books said they were extinct. One was the Bermuda Cahow, the other the large and beautifully plumaged Takahe (*Notornis*) of the South Island of New Zealand (Fig. 5).

Originally the Takahe had lived all over both the North and South Islands of New Zealand, but that was before white explorers, missionaries and settlers arrived. By about 1800, though the North Island form was extinct, the somewhat different South Island form was known to be still alive.

As time went on, a few specimens came to light, all from the vicinity of Lake Te Anau, which lies inland of the New Zealand fjord area of the South Island (Fig. 6). The “last” Takahe was killed by a dog on August 7, 1898. Fortunately the owner of the dog saw at once what it was and saved the specimen for a museum.

However, enough rumors about bird footprints came out of the area so that, in November 1948, Dr. Geoffrey E. Orbell led a small expedition to the mountains to the west of Lake Te Anau. Suddenly they saw a Takahe. One member of the expedition threw a net to catch it and caught two. They were tied up to be photographed and then released again. Now the Takahe, like the Bermuda Cahow, is strongly protected by law.

I KNOW that I am now expected to go and make a few predictions of what might still be discovered. I will, but before I do so, a quick look at some statistics ought to be most instructive.

The first book that tried to systematize all living animals was the *Systema naturae* of the Swedish scientist Karl von Linné, better known by the Latinized version of his name: Carolus Linnaeus. The tenth revised edition of his book (published just 200 years ago, in 1758) is always taken to be *the* edition of the *Systema naturae* and listed 180 mammals, 450 birds, 400 fishes and, of the insects, 600 beetles, and not quite as many different moths and butterflies.

In 1900, no less than 3500 mammals were known (this included so-called geographical variations), 13,000 birds, 5000 reptiles and amphibians, and about 30,000

fishes. Among the insects, they counted in 1900 an almost even 100,000 *Lepidoptera* (moths and butterflies), 30,000 *Hemiptera* (leaf hoppers, bugs, etc.), 130,000 *Coleoptera* (beetles), 30,000 *Diptera* (flies, etc.), 40,000 *Hymenoptera* (wasps, bees, *et al.*), 13,000 *Odonata* (dragonflies) and so on and so forth. There were 20,000 different spiders known, 8000 worms, 50,000 molluscs (snails, etc.) and 3000 echinoderms like starfish.

A few years before this count was taken, the Prussian Academy of Science, well supplied with money at the moment, decided to produce a modern equivalent of the *Systema naturae*, reflecting the zoological knowledge at the turn of the century. They worked bravely, producing 60 volumes of zoology. Then they had to give up because one of their members, the zoologist R. Hesse, calculated that the completion of the work would take 270 years—provided that no new discoveries would be made during that time!

As regards predictions, let's start with the easiest place of all, the oceans. We *know* that there are unknown fish; they have been seen through the window of the bathysphere by William Beebe. They haven't been taken yet, but they will be.

The International Geophysical Year is devoting much attention

to the oceans and to ocean currents at various layers. They are not specifically after the discovery of new fishes, but it would be most surprising if they did not get a few.

Then, also in the oceans, there is the problem of the Great Sea Serpent (see my *GALAXY* columns for December 1956 and January 1957), which might be a mammal.

Thirdly, there seems to be a hitherto undiscovered long-necked and large marine turtle.

TAKING the continents one by one, nothing specifically is rumored from North America. South America has many rumors emanating from it, but none specific enough to start theorizing. For a while, a kind of hunt was on for surviving giant sloths, but that has died down. Though South America will probably provide a number of novelties in time, there is no way of guessing what they might be. Europe can also be very nearly written off, except for a persistent rumor about a fairly large unknown lizardlike animal in the Austrian Alps.

Africa is a different story. There are rumors in quantity and they might very well be true.

One is usually referred to as "Nandi bear" (also as *chimiset*, *nunda* and *mngwa* — don't ask me how this should be pronounced),

which probably is not a bear but a man-killing mammal, possibly feline.

The other is a river- or lake-dwelling killer of hippopotami, referred to as the *chipekwe*, or *mokéle-mbémbe* and, possibly, *lau*. What can be learned always has a few things in common—the unknown animal lives in fresh water, but can go on land. It kills hippopotami, but does not eat them. It has a long neck. And somehow the impression of a reptilian nature is conveyed.

Passing on to Asia, the main mystery and possible next discovery is the *yeti* or "abominable snowman" whom the Sherpas describe as being the same size they are (average 5 ft. 6 in.) and covered with long-haired but very thin fur of a brownish color. It is possible that this is actually a very primitive human race. Elsewhere, primitive races have been pushed by their less primitive neighbors into environments that the less primitive peoples did not want themselves. This may well have happened in Central Asia to a primitive and somewhat peculiar-looking human type.

In Australia, there is one unknown animal that may be said to be almost known. It has been seen repeatedly in the northeast part of Australia, the Cape York Peninsula. It is rather matter-of-factly described as a "cat," as large

as a strong medium-sized dog, with a head resembling that of a tiger. It is described as striped, black on gray, with sharp claws and pointed ears. One witness saw it kill a kangaroo.

The animal is obviously rare and its habitat restricted to a comparatively small area. It could be either a real "cat" from the description, a feline carnivore like a large lynx. Or else, which would be much more interesting if it turned out to be the case, it could be a marsupial carnivore like the Tasmanian Tiger.

New Zealand, finally, could harbor two more discoveries that would not be complete novelties because they have been rumored for so long. One is the Waitoreke, the only (but undiscovered) indigenous land mammal of New Zealand. I have told what is known about it in my column in the October 1956 issue. The other, rumored from the Dusky Sound area, not too far from Takahe country, is a small Moa, the type called by scientists *Megalapteryx*. Like the Takahe, this *Megalapteryx* was known to the Maori and the most recent Moa remains known are of this type. Whether there are any left is doubtful, but not impossible.

Well, that's the story. Like all stories of discovery, it has no end, properly speaking, because the end consists of opening new vistas.

— WILLY LEY

STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 (Title 39, United States Code, Section 233) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION OF Galaxy Science Fiction published monthly at New York, N. Y. for Oct. 1, 1957.

1. The names and addresses of the publisher, editor, managing editor, and business managers are: Robert M. Guinn, 421 Hudson Street (14), New York City; Editor, Horace L. Gold, 421 Hudson Street (14) New York City; Managing Editor, None; Business Editor, None.

2. The owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual member, must be given.) Galaxy Publishing Corp., 421 Hudson Street (14), New York City; Robert M. Guinn (Sole Stockholder), 421 Hudson Street (14), New York City.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bone fide owner.

5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required from daily, weekly, semi-weekly, and triweekly newspapers only.)

/s/ ROBERT M. GUINN

Sworn to and subscribed before me this 26th day of September, 1957.

[SEAL]

/s/ JOAN J. DeMARIO

Notary Public, State of New York
No. 24-5978800

Qualified in Kings County
Term Expires March 30, 1958

The Repairman

By HARRY HARRISON

**Being an interstellar trouble shooter wouldn't
be so bad . . . if I could shoot the trouble!**

THE Old Man had that look of intense glee on his face that meant someone was in for a very rough time. Since we were alone, it took no great feat of intelligence to figure it would be me. I talked first, bold attack being the best defense and so forth.

"I quit. Don't bother telling me what dirty job you have cooked up, because I have already quit and you do not want to reveal company secrets to me."

The grin was even wider now and he actually chortled as he thumbed a button on his console.

A thick legal document slid out of the delivery slot onto his desk.

"This is your contract," he said. "It tells how and when you will work. A steel-and-vanadium-bound contract that you couldn't crack with a molecular disruptor."

I leaned out quickly, grabbed it and threw it into the air with a single motion. Before it could fall, I had my Solar out and, with a wide-angle shot, burned the contract to ashes.

The Old Man pressed the button again and another contract slid out on his desk. If possible,

Illustrated by KRAMER

the smile was still wider now.

"I should have said a *duplicate* of your contract — like this one here." He made a quick note on his secretary plate. "I have deducted 13 credits from your salary for the cost of the duplicate — as well as a 100-credit fine for firing a Solar inside a building."

I slumped, defeated, waiting for the blow to land. The Old Man fondled my contract.

"According to this document, you can't quit. Ever. Therefore I have a little job I know you'll enjoy. Repair job. The Centauri beacon has shut down. It's a Mark III beacon . . ."

"*What* kind of beacon?" I asked him. I have repaired hyperspace beacons from one arm of the Galaxy to the other and was sure I had worked on every type or model made. But I had never heard of this kind.

"Mark III," the Old Man repeated, practically chortling. "I never heard of it either until Records dug up the specs. They found them buried in the back of their oldest warehouse. This was the earliest type of beacon ever built — by Earth, no less. Considering its location on one of the Proxima Centauri planets, it might very well be the first beacon."

I LOOKED at the blueprints he handed me and felt my eyes glaze with horror. "It's a mon-

strosity! It looks more like a distillery than a beacon — must be at least a few hundred meters high. I'm a repairman, not an archeologist. This pile of junk is over 2000 years old. Just forget about it and build a new one."

The Old Man leaned over his desk, breathing into my face. "It would take a year to install a new beacon — besides being too expensive — and this relic is on one of the main routes. We have ships making fifteen-light-year detours now."

He leaned back, wiped his hands on his handkerchief and gave me Lecture Forty-four on Company Duty and My Troubles.

"This department is officially called Maintenance and Repair, when it really should be called trouble-shooting. Hyperspace beacons are made to last forever — or damn close to it. When one of them breaks down, it is *never* an accident, and repairing the thing is *never* a matter of just plugging in a new part."

He was telling *me* — the guy who did the job while he sat back on his fat paycheck in an air-conditioned office.

He rambled on. "How I wish that were all it took! I would have a fleet of parts ships and junior mechanics to install them. But it's not like that at all. I have a fleet of expensive ships that are equipped to do almost anything —

manned by a bunch of irresponsibles like you."

I nodded moodily at his pointing finger.

"How I wish I could fire you all! Combination space-jockeys, mechanics, engineers, soldiers, con-men and anything else it takes to do the repairs. I have to browbeat, bribe, blackmail and bulldoze you thugs into doing a simple job. If you think you're fed up, just think how I feel. But the ships must go through! The beacons must operate!"

I recognized this deathless line as the curtain speech and crawled to my feet. He threw the Mark III file at me and went back to scratching in his papers. Just as I reached the door, he looked up and impaled me on his finger again.

"And don't get any fancy ideas about jumping your contract. We can attach that bank account of yours on Algol II long before you could draw the money out."

I smiled, a little weakly, I'm afraid, as if I had never meant to keep that account a secret. His spies were getting more efficient every day. Walking down the hall, I tried to figure a way to transfer the money without his catching on — and knew at the same time he was figuring a way to outfigure me.

It was all very depressing, so I stopped for a drink, then went on to the spaceport.

BY the time the ship was serviced, I had a course charted. The nearest beacon to the broken-down Proxima Centauri Beacon was on one of the planets of Beta Circinus and I headed there first, a short trip of only about nine days in hyperspace.

To understand the importance of the beacons, you have to understand hyperspace. Not that many people do, but it is easy enough to understand that in this non-space the regular rules don't apply. Speed and measurements are a matter of relationship, not constant facts like the fixed universe.

The first ships to enter hyperspace had no place to go — and no way to even tell if they had moved. The beacons solved that problem and opened the entire universe. They are built on planets and generate tremendous amounts of power. This power is turned into radiation that is punched through into hyperspace. Every beacon has a code signal as part of its radiation and represents a measurable point in hyperspace. Triangulation and quadrature of the beacons works for navigation — only it follows its own rules. The rules are complex and variable, but they are still rules that a navigator can follow.

For a hyperspace jump, you need at least four beacons for an accurate fix. For long jumps, navigators use as many as seven or

eight. So every beacon is important and every one has to keep operating. That is where I and the other trouble-shooters came in.

We travel in well-stocked ships that carry a little bit of everything; only one man to a ship because that is all it takes to operate the overly efficient repair machinery. Due to the very nature of our job, we spend most of our time just rocketing through normal space. After all, when a beacon breaks down, how do you find it?

Not through hyperspace. All you can do is approach as close as you can by using other beacons, then finish the trip in normal space. This can take months, and often does.

This job didn't turn out to be quite that bad. I zeroed on the Beta Circinus beacon and ran a complicated eight-point problem through the navigator, using every beacon I could get an accurate fix on. The computer gave me a course with an estimated point-of-arrival as well as a built-in safety factor I never could eliminate from the machine.

I would much rather take a chance of breaking through near some star than spend time just barreling through normal space, but apparently Tech knows this, too. They had a safety factor built into the computer so you couldn't end up inside a star no matter how hard you tried. I'm sure there was

no humaneness in this decision. They just didn't want to lose the ship.

IT was a twenty-hour jump, ship's time, and I came through in the middle of nowhere. The robot analyzer chuckled to itself and scanned all the stars, comparing them to the spectra of Proxima Centauri. It finally rang a bell and blinked a light. I peeped through the eyepiece.

A fast reading with the photocell gave me the apparent magnitude and a comparison with its absolute magnitude showed its distance. Not as bad as I had thought—a six-week run, give or take a few days. After feeding a course tape into the robot pilot, I strapped into the acceleration tank and went to sleep.

The time went fast. I rebuilt my camera for about the twentieth time and just about finished a correspondence course in nucleonics. Most repairmen take these courses. Besides their always coming in handy, the company grades your pay by the number of specialties you can handle. All this, with some oil painting and free-fall workouts in the gym, passed the time. I was asleep when the alarm went off that announced planetary distance.

Planet two, where the beacon was situated according to the old charts, was a mushy-looking, wet



kind of globe. I tried to make sense out of the ancient directions and finally located the right area. Staying outside the atmosphere, I sent a flying eye down to look things over. In this business, you learn early when and where to risk your own skin. The eye would be good enough for the preliminary survey.

The old boys had enough brains to choose a traceable site for the beacon, equidistant on a line between two of the most prominent mountain peaks. I located the peaks easily enough and started the eye out from the first peak and kept it on a course directly toward the second. There was a nose and tail radar in the eye and I fed their signals into a scope as an amplitude curve. When the two peaks coincided, I spun the eye controls and dived the thing down.

I cut out the radar and cut in the nose orthicon and sat back to watch the beacon appear on the screen.

The image blinked, focused — and a great damn pyramid swam into view. I cursed and wheeled the eye in circles, scanning the surrounding country. It was flat, marshy bottom land without a bump. The only thing in a ten-mile circle was this pyramid — and that definitely wasn't my beacon.

Or wasn't it?

I dived the eye lower. The pyramid was a crude-looking thing of undressed stone, without carv-

ings or decorations. There was a shimmer of light from the top and I took a closer look at it. On the peak of the pyramid was a hollow basin filled with water. When I saw that, something clicked in my mind.

LOCKING the eye in a circular course, I dug through the Mark III plans — and there it was. The beacon had a precipitating field and a basin on top of it for water; this was used to cool the reactor that powered the monstrosity. If the water was still there, the beacon was still there — inside the pyramid. The natives, who, of course, weren't even mentioned by the idiots who constructed the thing, had built a nice heavy, thick stone pyramid around the beacon.

I took another look at the screen and realized that I had locked the eye into a circular orbit about twenty feet above the pyramid. The summit of the stone pile was now covered with lizards of some type, apparently the local life-form. They had what looked like throwing sticks and arbalasts and were trying to shoot down the eye, a cloud of arrows and rocks flying in every direction.

I pulled the eye straight up and away and threw in the control circuit that would return it automatically to the ship.

Then I went to the galley for a long, strong drink. My beacon was

not only locked inside a mountain of handmade stone, but I had managed to irritate the things who had built the pyramid. A great beginning for a job and one clearly designed to drive a stronger man than me to the bottle.

Normally, a repairman stays away from native cultures. They are poison. Anthropologists may not mind being dissected for their science, but a repairman wants to make no sacrifices of any kind for his job. For this reason, most beacons are built on uninhabited planets. If a beacon *has* to go on a planet with a culture, it is usually built in some inaccessible place.

Why this beacon had been built within reach of the local claws, I had yet to find out. But that would come in time. The first thing to do was make contact. To make contact, you have to know the local language.

And, for *that*, I had long before worked out a system that was fool-proof.

I had a pryeye of my own construction. It looked like a piece of rock about a foot long. Once on the ground, it would never be noticed, though it was a little disconcerting to see it float by. I located a lizard town about a thousand kilometers from the pyramid and dropped the eye. It swished down and landed at night in the bank of the local mud wallow. This was a favorite spot that drew

a good crowd during the day. In the morning, when the first wallowers arrived, I flipped on the recorder.

After about five of the local days, I had a sea of native conversation in the memory bank of the machine translator and had tagged a few expressions. This is fairly easy to do when you have a machine memory to work with. One of the lizards gargled at another one and the second one turned around. I tagged this expression with the phrase, "Hey, George!" and waited my chance to use it. Later the same day, I caught one of them alone and shouted "Hey, George!" at him. It gurgled out through the speaker in the local tongue and he turned around.

When you get enough reference phrases like this in the memory bank, the MT brain takes over and starts filling in the missing pieces. As soon as the MT could give a running translation of any conversation it heard, I figured it was time to make a contact.

I FOUND him easily enough. He was the Centaurian version of a goat-boy—he herded a particularly loathsome form of local life in the swamps outside the town. I had one of the working eyes dig a cave in an outcropping of rock and wait for him.

When he passed next day, I

whispered into the mike: "Welcome, O Goat-boy Grandson! This is your grandfather's spirit speaking from paradise." This fitted in with what I could make out of the local religion.

Goat-boy stopped as if he'd been shot. Before he could move, I pushed a switch and a handful of the local currency, wampum-type shells, rolled out of the cave and landed at his feet.

"Here is some money from paradise, because you have been a good boy." Not really from paradise—I had lifted it from the treasury the night before. "Come back tomorrow and we will talk some more," I called after the fleeing figure. I was pleased to notice that he took the cash before taking off.

After that, Grandpa in paradise had many heart-to-heart talks with Grandson, who found the heavenly loot more than he could resist. Grandpa had been out of touch with things since his death and Goat-boy happily filled him in.

I learned all I needed to know of the history, past and recent, and it wasn't nice.

In addition to the pyramid being around the beacon, there was a nice little religious war going on around the pyramid.

It all began with the land bridge. Apparently the local lizards had been living in the swamps when the beacon was built, but the build-

ers didn't think much of them. They were a low type and confined to a distant continent. The idea that the race would develop and might reach *this* continent never occurred to the beacon mechanics. Which is, of course, what happened.

A little geological turnover, a swampy land bridge formed in the right spot, and the lizards began to wander up beacon valley. And found religion. A shiny metal temple out of which poured a constant stream of magic water—the reactor-cooling water pumped down from the atmosphere condenser on the roof. The radioactivity in the water didn't hurt the natives. It caused mutations that bred true.

A city was built around the temple and, through the centuries, the pyramid was put up around the beacon. A special branch of the priesthood served the temple. All went well until one of the priests violated the temple and destroyed the holy waters. There had been revolt, strife, murder and destruction since then. But still the holy waters would not flow. Now armed mobs fought around the temple each day and a new band of priests guarded the sacred fount.

And I had to walk into the middle of that mess and repair the thing.

It would have been easy enough

if we were allowed a little mayhem. I could have had a lizard fry, fixed the beacon and taken off. Only "native life-forms" were quite well protected. There were spy cells on my ship, all of which I hadn't found, that would cheerfully rat on me when I got back.

Diplomacy was called for. I sighed and dragged out the plastiflesh equipment.

WORKING from 3D snaps of Grandson, I modeled a passable reptile head over my own features. It was a little short in the jaw, me not having one of their toothy mandibles, but that was all right. I didn't have to look *exactly* like them, just something close, to soothe the native mind. It's logical. If I were an ignorant aborigine of Earth and I ran into a Spican, who looks like a two-foot gob of dried shellac, I would immediately leave the scene. However, if the Spican was wearing a suit of plastiflesh that looked remotely humanoid, I would at least stay and talk to him. This was what I was aiming to do with the Centaurians.

When the head was done, I peeled it off and attached it to an attractive suit of green plastic, complete with tail. I was really glad they had tails. The lizards didn't wear clothes and I wanted to take along a lot of electronic equipment. I built the tail over a

metal frame that anchored around my waist. Then I filled the frame with all the equipment I would need and began to wire the suit.

When it was done, I tried it on in front of a full-length mirror. It was horrible but effective. The tail dragged me down in the rear and gave me a duck-waddle, but that only helped the resemblance.

That night I took the ship down into the hills nearest the pyramid, an out-of-the-way dry spot where the amphibious natives would never go. A little before dawn, the eye hooked onto my shoulders and we sailed straight up. We hovered above the temple at about 2,000 meters, until it was light, then dropped straight down.

It must have been a grand sight. The eye was camouflaged to look like a flying lizard, sort of a cardboard pterodactyl, and the slowly flapping wings obviously had nothing to do with our flight. But it was impressive enough for the natives. The first one that spotted me screamed and dropped over on his back. The others came running. They milled and mobbed and piled on top of one another, and by that time I had landed in the plaza fronting the temple. The priesthood arrived.

I folded my arms in a regal stance. "Greetings, O noble servers of the Great God," I said. Of course I didn't say it out loud, just whispered loud enough for

the throat mike to catch. This was radioed back to the MT and the translation shot back to a speaker in my jaws.

The natives chomped and rattled and the translation rolled out almost instantly. I had the volume turned up and the whole square echoed.

Some of the more credulous natives prostrated themselves and others fled screaming. One doubtful type raised a spear, but no one else tried that after the pterodactyl-eye picked him up and dropped him in the swamp. The priests were a hard-headed lot and weren't buying any lizards in a poke; they just stood and muttered. I had to take the offensive again.

"Begone, O faithful steed," I said to the eye, and pressed the control in my palm at the same time.

It took off straight up a bit faster than I wanted; little pieces of wind-torn plastic rained down. While the crowd was ogling this ascent, I walked through the temple doors.

"I would talk with you, O noble priests," I said.

Before they could think up a good answer, I was inside.

THE temple was a small one built against the base of the pyramid. I hoped I wasn't breaking too many taboos by going in.

I wasn't stopped, so it looked all right. The temple was a single room with a murky-looking pool at one end. Sloshing in the pool was an ancient reptile who clearly was one of the leaders. I waddled toward him and he gave me a cold and fishy eye, then growled something.

The MT whispered into my ear, "Just what in the name of the thirteenth sin are you and what are you doing here?"

I drew up my scaly figure in a noble gesture and pointed toward the ceiling. "I come from your ancestors to help you. I am here to restore the Holy Waters."

This raised a buzz of conversation behind me, but got no rise out of the chief. He sank slowly into the water until only his eyes were showing. I could almost hear the wheels turning behind that moss-covered forehead. Then he lunged up and pointed a dripping finger at me.

"You are a liar! You are no ancestor of ours! We will—"

"Stop!" I thundered before he got so far in that he couldn't back out. "I said your ancestors sent me as emissary—I am not one of your ancestors. Do not try to harm me or the wrath of those who have Passed On will turn against you."

When I said this, I turned to jab a claw at the other priests, using the motion to cover my flicking a coin grenade toward them.

It blew a nice hole in the floor with a great show of noise and smoke.

The First Lizard knew I was talking sense then and immediately called a meeting of the shamans. It, of course, took place in the public bathtub and I had to join them there. We jawed and gurgled for about an hour and settled all the major points.

I found out that they were new priests; the previous ones had all been boiled for letting the Holy Waters cease. They found out I was there only to help them restore the flow of the waters. They bought this, tentatively, and we all heaved out of the tub and trickled muddy paths across the floor. There was a bolted and guarded door that led into the pyramid proper. While it was being opened, the First Lizard turned to me.

"Undoubtedly you know of the rule," he said. "Because the old priests did pry and peer, it was ruled henceforth that only the blind could enter the Holy of Holies." I'd swear he was smiling, if thirty teeth peeking out of what looked like a crack in an old suitcase can be called smiling.

He was also signaling to him an underpriest who carried a brazier of charcoal complete with red-hot irons. All I could do was stand and watch as he stirred up the coals, pulled out the ruddiest iron and turned toward me. He was

just drawing a bead on my right eyeball when my brain got back in gear.

"Of course," I said, "blinding is only right. But in my case you will have to blind me before I leave the Holy of Holies, not now. I need my eyes to see and mend the Fount of Holy Waters. Once the waters flow again, I will laugh as I hurl myself on the burning iron."

HE took a good thirty seconds to think it over and had to agree with me. The local torturer sniffled a bit and threw a little more charcoal on the fire. The gate crashed open and I stalked through; then it banged to behind me and I was alone in the dark.

But not for long—there was a shuffling nearby and I took a chance and turned on my flash. Three priests were groping toward me, their eye-sockets red pits of burned flesh. They knew what I wanted and led the way without a word.

A crumbling and cracked stone stairway brought us up to a solid metal doorway labeled in archaic script *MARK III BEACON — AUTHORIZED PERSONNEL ONLY*. The trusting builders counted on the sign to do the whole job, for there wasn't a trace of a lock on the door. One lizard merely turned the handle and we were inside the beacon.

I unzipped the front of my camouflage suit and pulled out the blueprints. With the faithful priests stumbling after me, I located the control room and turned on the lights. There was a residue of charge in the emergency batteries, just enough to give a dim light. The meters and indicators looked to be in good shape; if anything, unexpectedly bright from constant polishing.

I checked the readings carefully and found just what I had suspected. One of the eager lizards had managed to open a circuit box and had polished the switches inside. While doing this, he had thrown one of the switches and that had caused the trouble.

RATHER, that had *started* the trouble. It wasn't going to be ended by just reversing the water-valve switch. This valve was supposed to be used only for repairs, after the pile was damped. When the water was cut off with the pile in operation, it had started to over-heat and the automatic safeties had dumped the charge down the pit.

I could start the water again easily enough, but there was no fuel left in the reactor.

I wasn't going to play with the fuel problem at all. It would be far easier to install a new power plant. I had one in the ship that was about a tenth the size of the

ancient bucket of bolts and produced at least four times the power. Before I sent for it, I checked over the rest of the beacon. In 2000 years, there should be *some* sign of wear.

The old boys had built well, I'll give them credit for that. Ninety per cent of the machinery had no moving parts and had suffered no wear whatever. Other parts they had beefed up, figuring they would wear, but slowly. The water-feed pipe from the roof, for example. The pipe walls were at least three meters thick—and the pipe opening itself no bigger than my head. There were some things I could do, though, and I made a list of parts.

The parts, the new power plant and a few other odds and ends were chuted into a neat pile on the ship. I checked all the parts by screen before they were loaded in a metal crate. In the darkest hour before dawn, the heavy-duty eye dropped the crate outside the temple and darted away without being seen.

I watched the priests through the pryeye while they tried to open it. When they had given up, I boomed orders at them through a speaker in the crate. They spent most of the day sweating the heavy box up through the narrow temple stairs and I enjoyed a good sleep. It was resting inside the beacon door when I woke up.

THE repairs didn't take long, though there was plenty of groaning from the blind lizards when they heard me ripping the wall open to get at the power leads. I even hooked a gadget to the water pipe so their Holy Waters would have the usual refreshing radioactivity when they started flowing again. The moment this was all finished, I did the job they were waiting for.

I threw the switch that started the water flowing again.

There were a few minutes while the water began to gurgle down through the dry pipe. Then a roar came from outside the pyramid that must have shaken its stone walls. Shaking my hands once over my head, I went down for the eye-burning ceremony.

The blind lizards were waiting for me by the door and looked even unhappier than usual. When I tried the door, I found out why—it was bolted and barred from the other side.

"It has been decided," a lizard said, "that you shall remain here forever and tend the Holy Waters. We will stay with you and serve your every need."

A delightful prospect, eternity spent in a locked beacon with three blind lizards. In spite of their hospitality, I couldn't accept.

"What—you dare interfere with the messenger of your ancestors!" I had the speaker on full volume

and the vibration almost shook my head off.

The lizards cringed and I set my Solar for a narrow beam and ran it around the door jamb. There was a great crunching and banging from the junk piled against it, and then the door swung free. I threw it open. Before they could protest, I had pushed the priests out through it.

The rest of their clan showed up at the foot of the stairs and made a great ruckus while I finished welding the door shut. Running through the crowd, I faced up to the First Lizard in his tub. He sank slowly beneath the surface.

"What lack of courtesy!" I shouted. He made little bubbles in the water. "The ancestors are annoyed and have decided to forbid entrance to the Inner Temple forever; though, out of kindness, they will let the waters flow. Now I must return—on with the ceremony!"

The torture-master was too frightened to move, so I grabbed out his hot iron. A touch on the side of my face dropped a steel plate over my eyes, under the plastiskin. Then I jammed the iron hard into my phony eye-sockets and the plastic gave off an authentic odor.

A cry went up from the crowd as I dropped the iron and staggered in blind circles. I must admit it went off pretty well.

BEFORE they could get any more bright ideas, I threw the switch and my plastic pterodactyl sailed in through the door. I couldn't see it, of course, but I knew it had arrived when the grapples in the claws latched onto the steel plates on my shoulders.

I had got turned around after the eye-burning and my flying beast hooked onto me backward. I had meant to sail out bravely, blind eyes facing into the sunset; instead, I faced the crowd as I soared away, so I made the most of a bad situation and threw them a snappy military salute. Then I was out in the fresh air and away.

When I lifted the plate and poked holes in the seared plastic, I could see the pyramid growing smaller behind me, water gushing out of the base and a happy crowd of reptiles sporting in its radioactive rush. I counted off

on my talons to see if I had forgotten anything.

One: The beacon was repaired.

Two: The door was sealed, so there should be no more sabotage, accidental or deliberate.

Three: The priests should be satisfied. The water was running again, my eyes had been duly burned out, and they were back in business. Which added up to—

Four: The fact that they would probably let another repairman in, under the same conditions, if the beacon conked out again. At least I had done nothing, like butchering a few of them, that would make them antagonistic toward future ancestral messengers.

I stripped off my tattered lizard suit back in the ship, very glad that it would be some other repairman who'd get the job.

—HARRY HARRISON

The Great News Next Month . . .

THE BIG TIME

by Fritz Leiber

More immense in scope than cosmos and history, here is the inside story of the war you aren't allowed to know is going on . . . the vast struggle over your live and dead body! Beginning in the next issue, in two thought-inciting, pulse-pounding installments, written by one of science fiction's greats, **The Big Time** is the big event of 1958. Don't miss it!

Bread

Overhead

By FRITZ LEIBER

The Staff of Life suddenly and

disconcertingly sprouted wings

— and mankind had to eat crow!

Illustrated by WOOD

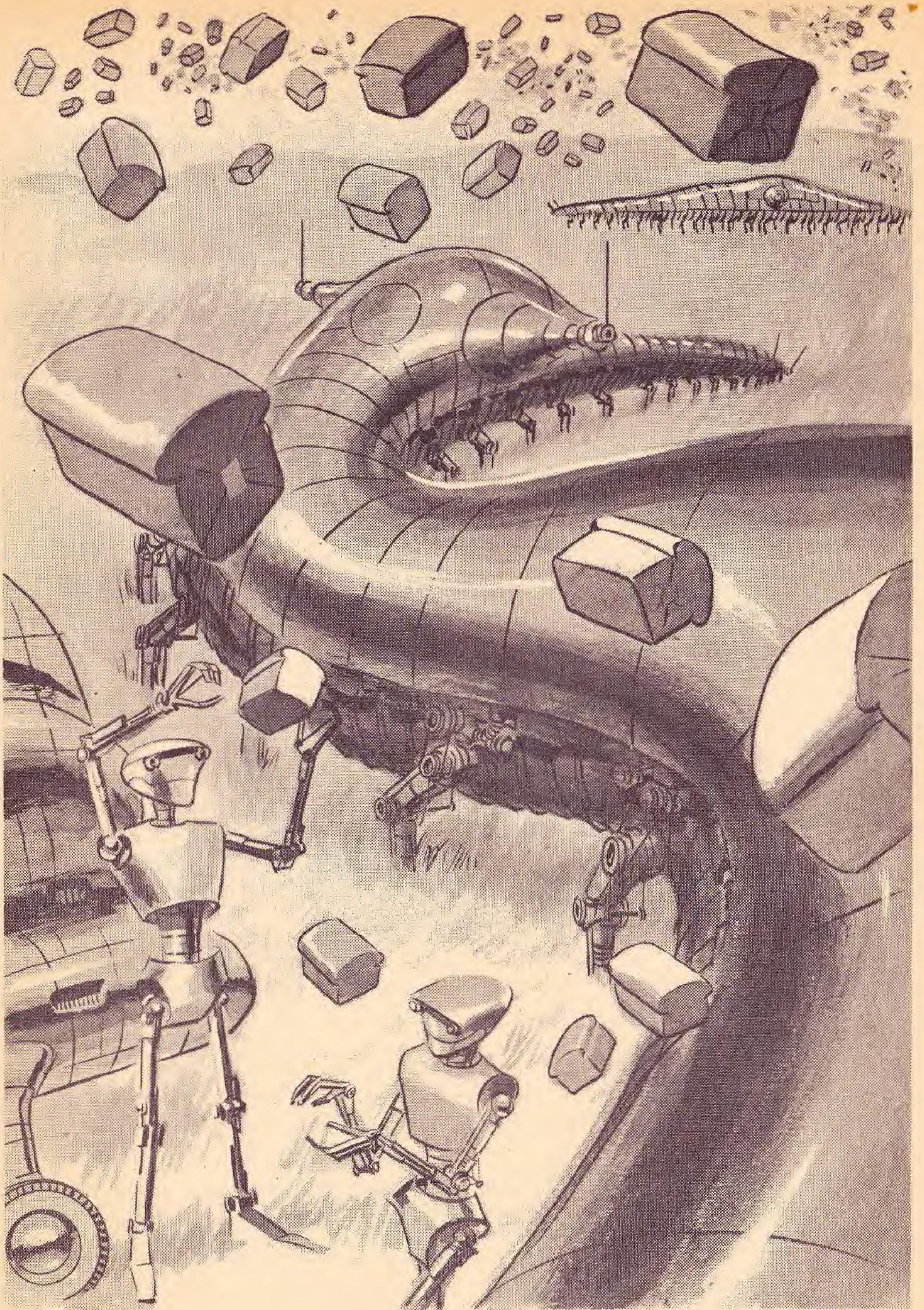
AS a blisteringly hot but guaranteed weather-controlled future summer day dawned on the Mississippi Valley, the walking mills of Puffy Products ("Spike to Loaf in One Operation!") began to tread delicately on their centipede legs across the wheat fields of Kansas.

The walking mills resembled fat metal serpents, rather larger than those Chinese paper dragons animated by files of men in procession. Sensory robot devices in their noses informed them that the waiting wheat had reached ripe perfection.

As they advanced, their heads

swung lazily from side to side, very much like snakes, gobbling the yellow grain. In their throats, it was threshed, the chaff bundled and burped aside for pickup by the crawl trucks of a chemical corporation, the kernels quick-dried and blown along into the mighty chests of the machines. There the tireless mills ground the kernels to flour, which was instantly sifted, the bran being packaged and dropped like the chaff for pickup.

A cluster of tanks which gave the metal serpents a decidedly humpbacked appearance added water, shortening, salt and other ingredients, some named and some



not. The dough was at the same time infused with gas from a tank conspicuously labeled "Carbon Dioxide" ("No Yeast Creatures in Your Bread!").

Thus instantly risen, the dough was clipped into loaves and shot into radionic ovens forming the midsections of the metal serpents. There the bread was baked in a matter of seconds, a fierce heat-front browning the crusts, and the piping-hot loaves sealed in transparent plastic bearing the proud Puffyloaf emblem (two cherubs circling a floating loaf) and ejected onto the delivery platform at each serpent's rear end, where a cluster of pickup machines, like hungry piglets, snatched at the loaves with hygienic claws.

A few loaves would be hurried off for the day's consumption, the majority stored for winter in strategically located mammoth deep freezes.

But now, behold a wonder! As loaves began to appear on the delivery platform of the first walking mill to get into action, they did not linger on the conveyor belt, but rose gently into the air and slowly traveled off downwind across the hot rippling fields.

THE robot claws of the pickup machines clutched in vain, and, not noticing the difference, proceeded carefully to stack emptiness, tier by tier. One errant loaf,

rising more sluggishly than its fellows, was snagged by a thrusting claw. The machine paused, clumsily wiped off the injured loaf, set it aside—where it bobbed on one corner, unable to take off again—and went back to the work of storing nothingness.

A flock of crows rose from the trees of a nearby shelterbelt as the flight of loaves approached. The crows swooped to investigate and then suddenly scattered, screeching in panic.

The helicopter of a hangoverish Sunday traveler bound for Wichita shied very similarly from the brown fliers and did not return for a second look.

A black-haired housewife spied them over her back fence, crossed herself and grabbed her walkie-talkie from the laundry basket. Seconds later, the yawning correspondent of a regional newspaper was jotting down the lead of a humorous news story which, recalling the old flying-saucer scares, stated that now apparently bread was to be included in the mad aerial tea party.

The congregation of an open-walled country church, standing up to recite the most familiar of Christian prayers, had just reached the petition for daily sustenance, when a sub-flight of the loaves, either forced down by a vagrant wind or lacking the natural buoyancy of the rest, came coasting si-

lently as the sunbeams between the graceful pillars at the altar end of the building.

Meanwhile, the main flight, now augmented by other bread flocks from scores and hundreds of walking mills that had started work a little later, mounted slowly and majestically into the cirrus-flecked upper air, where a steady wind was blowing strongly toward the east.

About one thousand miles farther on in that direction, where a cluster of stratosphere - tickling towers marked the location of the metropolis of NewNew York, a tender scene was being enacted in the pressurized penthouse managerial suite of Puffy Products. Megera Winterly, Secretary in Chief to the Managerial Board and referred to by her underlings as the Blonde Icicle, was dealing with the advances of Roger ("Racehorse") Snedden, Assistant Secretary to the Board and often indistinguishable from any passing office boy.

"Why don't you jump out the window, Roger, remembering to shut the airlock after you?" the Golden Glacier said in tones not unkind. "When are your high-strung, thoroughbred nerves going to accept the fact that I would never consider marriage with a business inferior? You have about as much chance as a starving Ukrainian kulak now that Moscow's clapped on the interdict."

ROGER'S voice was calm, although his eyes were feverishly bright, as he replied, "A lot of things are going to be different around here, Meg, as soon as the Board is forced to admit that only my quick thinking made it possible to bring the name of Puffyloaf in front of the whole world."

"Puffyloaf could do with a little of that," the business girl observed judiciously. "The way sales have been plummeting, it won't be long before the Government deeds our desks to the managers of Fairy Bread and asks us to take the Big Jump. But just where does your quick thinking come into this, Mr. Snedden? You can't be referring to the helium — that was Rose Thinker's brainwave."

She studied him suspiciously. "You've birthed another promotional bumble, Roger. I can see it in your eyes. I only hope it's not as big a one as when you put the Martian ambassador on 3D and he thanked you profusely for the gross of Puffyloaves, assuring you that he'd never slept on a softer mattress in all his life on two planets."

"Listen to me, Meg. Today — yes, today! — you're going to see the Board eating out of my hand."

"Hah! I guarantee you won't have any fingers left. You're bold enough now, but when Mr. Gryce and those two big machines come through that door —"

"Now wait a minute, Meg —"

"Hush! They're coming now!"

Roger leaped three feet in the air, but managed to land without a sound and edged toward his stool. Through the dilating iris of the door strode Phineas T. Gryce, flanked by Rose Thinker and Tin Philosopher.

The man approached the conference table in the center of the room with measured pace and gravely expressionless face. The rose-tinted machine on his left did a couple of impulsive pirouettes on the way and twittered a greeting to Meg and Roger. The other machine quietly took the third of the high seats and lifted a claw at Meg, who now occupied a stool twice the height of Roger's.

"Miss Winterly, please — our theme."

The Blonde Icicle's face thawed into a little-girl smile as she chanted bubblingly:

*"Made up of tiny wheaten motes
And reinforced with sturdy
oats,
It rises through the air and
floats —
The bread on which all Terra
dotes!"*

"**T**HANK YOU, Miss Winterly," said Tin Philosopher. "Though a purely figurative statement, that bit about rising through the air always gets me — here." He rapped his midsection, which gave off a high musical *clang*.

"Ladies —" he inclined his photocells toward Rose Thinker and Meg — "and gentlemen. This is a historic occasion in Old Puffy's long history, the inauguration of the helium-filled loaf ('So Light It Almost Floats Away!') in which that inert and heaven-aspiring gas replaces old-fashioned carbon dioxide. Later, there will be kudos for Rose Thinker, whose bright relays genius-sparked the idea, and also for Roger Snedden, who took care of the details.

"By the by, Racehorse, that was a brilliant piece of work getting the helium out of the government — they've been pretty stuffy lately about their monopoly. But first I want to throw wide the casement in your minds that opens on the Long View of Things."

Rose Thinker spun twice on her chair and opened her photocells wide. Tin Philosopher coughed to limber up the diaphragm of his speaker and continued:

"Ever since the first cave wife boasted to her next-den neighbor about the superior paleness and fluffiness of her tortillas, mankind has sought lighter, whiter bread. Indeed, thinkers wiser than myself have equated the whole upward course of culture with this poignant quest. Yeast was a wonderful discovery — for its primitive day. Sifting the bran and wheat germ from the flour was an even more important advance. Early bleaching and preserv-



ing chemicals played their humble parts.

"For a while, barbarous faddists — blind to the deeply spiritual nature of bread, which is recognized by all great religions — held back our march toward perfection with their hair-splitting insistence on the vitamin content of the wheat germ, but their case collapsed when tasteless colorless substitutes were triumphantly synthesized and introduced into the loaf, which for flawless purity, unequaled airiness and sheer intangible goodness was rapidly becoming mankind's supreme gustatory experience."

"I wonder what the stuff tastes like," Rose Thinker said out of a clear sky.

"I wonder what taste tastes like," Tin Philosopher echoed dreamily. Recovering himself, he continued:

"Then, early in the twenty-first century, came the epochal researches of Everett Whitehead, Puffyloaf chemist, culminating in his paper 'The Structural Bubble in Cereal Masses' and making possible the baking of airtight bread twenty times stronger (for its weight) than steel and of a lightness that would have been incredible even to the advanced chemist-bakers of the twentieth century — a lightness so great that, besides forming the backbone of our own promotion, it has forever since been capitalized on by our conscienceless competitors of Fairy

Bread with their enduring slogan: 'It Makes Ghost Toast'."

"That's a beaut, all right, that ecto-dough blurb," Rose Thinker admitted, bugging her photocells sadly. "Wait a sec. How about? —

*"There'll be bread
Overhead
When you're dead —
It is said."*

PHINEAS T. GRyce wrinkled his nostrils at the pink machine as if he smelled her insulation smoldering. He said mildly, "A somewhat unhappy jingle, Rose, referring as it does to the end of the customer as consumer. Moreover, we shouldn't overplay the figurative 'rises through the air' angle. What inspired you?"

She shrugged. "I don't know — oh, yes, I do. I was remembering one of the workers' songs we machines used to chant during the Big Strike —

*"Work and pray,
Live on hay.
You'll get pie
In the sky
When you die —
It's a lie!"*

"I don't know why we chanted it," she added. "We didn't want pie — or hay, for that matter. And machines don't pray, except Tibetan prayer wheels."

Phineas T. Gryce shook his head. "Labor relations are another topic we should stay far away from.

However, dear Rose, I'm glad you keep trying to outjingle those dirty crooks at Fairy Bread." He scowled, turning back his attention to Tin Philosopher. "I get whopping mad, Old Machine, whenever I hear that other slogan of theirs, the discriminatory one—'Untouched by Robot Claws.' Just because they employ a few filthy androids in their factories!"

Tin Philosopher lifted one of his own sets of bright talons. "Thanks, P.T. But to continue my historical resume, the next great advance in the baking art was the substitution of purified carbon dioxide, recovered from coal smoke, for the gas generated by yeast organisms indwelling in the dough and later killed by the heat of baking, their corpses remaining *in situ*. But even purified carbon dioxide is itself a rather repugnant gas, a product of metabolism whether fast or slow, and forever associated with those life processes which are obnoxious to the fastidious."

Here the machine shuddered with delicate clinkings. "Therefore, we of Puffyloaf are taking today what may be the ultimate step toward purity: we are aerating our loaves with the noble gas helium, an element which remains virginal in the face of all chemical temptations and whose slim molecules are eleven times lighter than obese carbon dioxide—yes, noble uncontaminable helium, which, if it be a

kind of ash, is yet the ash only of radioactive burning, accomplished or initiated entirely on the Sun, a safe 93 million miles from this planet. Let's have a cheer for the helium loaf!"

WITHOUT changing expression, Phineas T. Gryce rapped the table thrice in solemn applause, while the others bowed their heads.

"Thanks, T.P.," P.T. then said. "And now for the Moment of Truth. Miss Winterly, how is the helium loaf selling?"

The business girl clapped on a pair of earphones and whispered into a lapel mike. Her gaze grew abstracted as she mentally translated flurries of brief squawks into coherent messages. Suddenly a single vertical furrow creased her matchlessly smooth brow.

"It isn't, Mr. Gryce!" she gasped in horror. "Fairy Bread is outselling Puffyloaves by an infinity factor. So far this morning, *there has not been one single delivery of Puffyloaves to any sales spot!* Complaints about non-delivery are pouring in from both walking stores and sessile shops."

"Mr. Snedden!" Gryce barked. "What bug in the new helium process might account for this delay?"

Roger was on his feet, looking bewildered. "I can't imagine, sir, unless—just possibly—there's been some unforeseeable difficulty

involving the new metal-foil wrappers."

"Metal-foil wrappers? Were you responsible for those?"

"Yes, sir. Last-minute recalculations showed that the extra lightness of the new loaf might be great enough to cause drift during stackage. Drafts in stores might topple sales pyramids. Metal-foil wrappers, by their added weight, took care of the difficulty."

"And you ordered them without consulting the Board?"

"Yes, sir. There was hardly time and —"

"Why, you fool! I noticed that order for metal-foil wrappers, assumed it was some sub-secretary's mistake, and canceled it last night!"

Roger Snedden turned pale. "You canceled it?" he quavered. "And told them to go back to the lighter plastic wrappers?"

"Of course! Just what is behind all this, Mr. Snedden? *What* recalculations were you trusting, when our physicists had demonstrated months ago that the helium loaf was safely stackable in light airs and gentle breezes — winds up to Beaufort's scale 3. *Why* should a change from heavier to lighter wrappers result in complete non-delivery?"

ROGER Snedden's paleness became tinged with an interesting green. He cleared his throat and made strange gulping noises.

Tin Philosopher's photocells focused on him calmly, Rose Thinker's with unfeigned excitement. P. T. Gryce's frown grew blacker by the moment, while Megera Winterly's Venus-mask showed an odd dawning of dismay and awe. She was getting new squawks in her earphones.

"Er . . . ah . . . er . . ." Roger said in winning tones. "Well, you see, the fact is that I . . ."

"Hold it," Meg interrupted crisply. "Triple-urgent from Public Relations, Safety Division. Tulsa-Topeka aero-express makes emergency landing after being buffeted in encounter with vast flight of objects first described as brown birds, although no failures reported in airway's electronic anti-bird fences. After grounding safely near Emporia — no fatalities — pilot's windshield found thinly plastered with soft white-and-brown material. Emblems on plastic wrappers embedded in material identify it incontrovertibly as an undetermined number of Puffyloaves cruising at three thousand feet!"

Eyes and photocells turned inquisitorially upon Roger Snedden. He went from green to Puffyloaf white and blurted: "All right, I did it, but it was the only way out! Yesterday morning, due to the Ukrainian crisis, the government stopped sales and deliveries of all strategic stockpiled materials, including helium gas. Puffy's new

program of advertising and promotion, based on the lighter loaf, was already rolling. There was only one thing to do, there being only one other gas comparable in lightness to helium. I diverted the necessary quantity of hydrogen gas from the Hydrogenated Oils Section of our Magna-Margarine Division and substituted it for the helium."

"You substituted . . . hydrogen . . . for the . . . helium?" Phineas T. Gryce faltered in low mechanical tones, taking four steps backward.

"Hydrogen is twice as light as helium," Tin Philosopher remarked judiciously.

"And many times cheaper — did you know that?" Roger countered feebly. "Yes, I substituted hydrogen. The metal-foil wrapping would have added just enough weight to counteract the greater buoyancy of the hydrogen loaf. But —"

"So, when this morning's loaves began to arrive on the delivery platforms of the walking mills . . ." Tin Philosopher left the remark unfinished.

"Exactly," Roger agreed dismally.

"Let me ask you, Mr. Snedden," Gryce interjected, still in low tones, "if you expected people to jump to the kitchen ceiling for their Puffybread after taking off the metal wrapper, or reach for the sky if they happened to unwrap the stuff outdoors?"

"Mr. Gryce," Roger said reproachfully, "you have often assured me that what people do with Puffybread after they buy it is no concern of ours."

"I seem to recall," Rose Thinker chirped somewhat unkindly, "that dictum was created to answer inquiries after Roger put the famous sculptures-in-miniature artist on 3D and he testified that he always molded his first attempts from Puffybread, one jumbo loaf squeezing down to approximately the size of a peanut."

HER photocells dimmed and brightened. "Oh, boy — hydrogen! The loaf's unwrapped. After a while, in spite of the crust-seal, a little oxygen diffuses in. An explosive mixture. Housewife in curlers and kimono pops a couple slices in the toaster. Boom!"

The three human beings in the room winced.

Tin Philosopher kicked her under the table, while observing, "So you see, Roger, that the non-delivery of the hydrogen loaf carries some consolations. And I must confess that one aspect of the affair gives me great satisfaction, not as a Board Member but as a private machine. You have at last made a reality of the 'rises through the air' part of Puffybread's theme. They can't ever take that away from you. By now, half the inhabitants of the Great Plains must have observed

our flying loaves rising high."

Phineas T. Gryce shot a frightened look at the west windows and found his full voice.

"Stop the mills!" he roared at Meg Winterly, who nodded and whispered urgently into her mike.

"A sensible suggestion," Tin Philosopher said. "But it comes a trifle late in the day. If the mills are still walking and grinding, approximately seven billion Puffyloaves are at this moment cruising eastward over Middle America. Remember that a six-month supply for deep-freeze is involved and that the current consumption of bread, due to its matchless airiness, is eight and one-half loaves per person per day."

Phineas T. Gryce carefully inserted both hands into his scanty hair, feeling for a good grip. He leaned menacingly toward Roger who, chin resting on the table, regarded him apathetically.

"Hold it!" Meg called sharply. "Flock of multiple-urgents coming in. News Liaison: information bureaus swamped with flying-bread inquiries. Aero-expresslines: Clear our airways or face law suit. U. S. Army: Why do loaves flame when hit by incendiary bullets? U. S. Customs: If bread intended for export, get export license or face prosecution. Russian Consulate in Chicago: Advise on destination of bread-lift. And some Kansas church is accusing us of a hoax inciting to

blasphemy, of faking miracles — I don't know *why*."

The business girl tore off her headphones. "Roger Snedden," she cried with a hysteria that would have dumfounded her underlings, "you've brought the name of Puffyloaf in front of the whole world, all right! Now do something about the situation!"

Roger nodded obediently. But his pallor increased a shade, the pupils of his eyes disappeared under the upper lids, and his head burrowed beneath his forearms.

"Oh, boy," Rose Thinker called gayly to Tin Philosopher, "this looks like the start of a real crisis session! Did you remember to bring spare batteries?"

MEANWHILE, the monstrous flight of Puffyloaves, filling midwestern skies as no small fliers had since the days of the passenger pigeon, soared steadily onward.

Private fliers approached the brown and glistening bread-front in curiosity and dipped back in awe. Aero-expresslines organized sight-seeing flights along the flanks. Planes of the government forestry and agricultural services and 'copters bearing the Puffyloaf emblem hovered on the fringes, watching developments and waiting for orders. A squadron of supersonic fighters hung menacingly above.

The behavior of birds varied considerably. Most fled or gave the

loaves a wide berth, but some bolder species, discovering the minimal nutritive nature of the translucent brown objects, attacked them furiously with beaks and claws. Hydrogen diffusing slowly through the crusts had now distended most of the sealed plastic wrappers into little balloons, which ruptured, when pierced, with disconcerting *pops*.

Below, neck-craning citizens crowded streets and back yards, cranks and cultists had a field day, while local and national governments raged indiscriminately at Puffyloaf and at each other.

Rumors that a fusion weapon would be exploded in the midst of the flying bread drew angry protests from conservationists and a flood of telefax pamphlets titled "H-Loaf or H-bomb?"

Stockholm sent a mystifying note of praise to the United Nations Food Organization.

Delhi issued nervous denials of a millet blight that no one had heard of until that moment and reaffirmed India's ability to feed her population with no outside help except the usual.

Radio Moscow asserted that the Kremlin would brook no interference in its treatment of the Ukrainians, jokingly referred to the flying bread as a farce perpetrated by mad internationalists inhabiting Cloud Cuckoo Land, added contradictory references to airborne

bread booby-trapped by Capitalist gangsters, and then fell moodily silent on the whole topic.

Radio Venus reported to its winged audience that Earth's inhabitants were establishing food depots in the upper air, preparatory to taking up permanent aerial residence "such as we have always enjoyed on Venus."

NEWNEW YORK made feverish preparations for the passage of the flying bread. Tickets for sightseeing space in skyscrapers were sold at high prices; cold meats and potted spreads were hawked to viewers with the assurance that they would be able to snag the bread out of the air and enjoy a historic sandwich.

Phineas T. Gryce, escaping from his own managerial suite, raged about the city, demanding general cooperation in the stretching of great nets between the skyscrapers to trap the errant loaves. He was captured by Tin Philosopher, escaped again, and was found posted with oxygen mask and submachine-gun on the topmost spire of Puffyloaf Tower, apparently determined to shoot down the loaves as they appeared and before they involved his company in more trouble with Customs and the State Department.

Recaptured by Tin Philosopher, who suffered only minor bullet holes, he was given a series of mild electroshocks and returned to the



conference table, calm and clear-headed as ever.

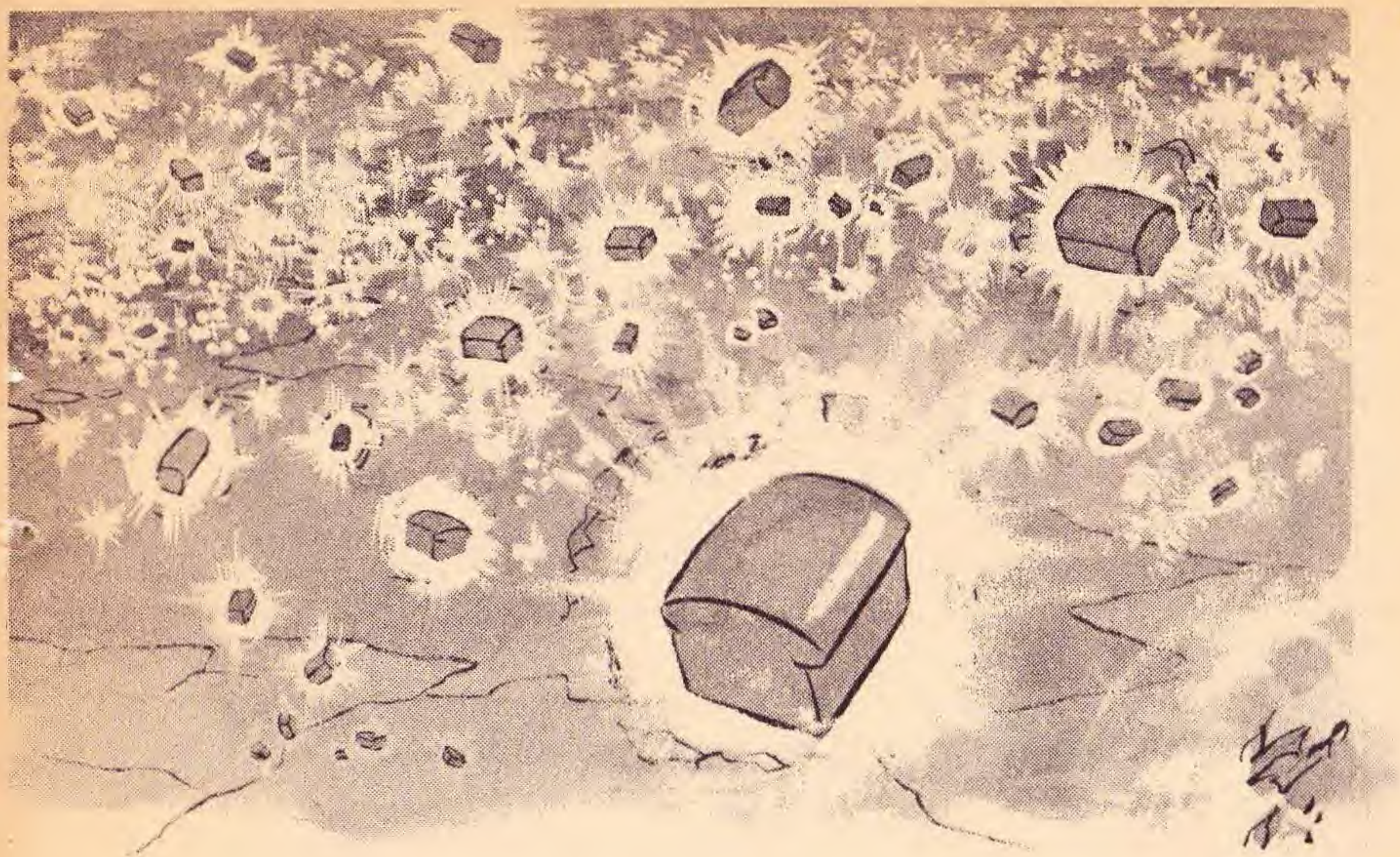
But the bread flight, swinging away from a hurricane moving up the Atlantic coast, crossed a clouded-in Boston by night and disappeared into a high Atlantic overcast, also thereby evading a local storm generated by the Weather Department in a last-minute effort to bring down or at least disperse the H-loaves.

Warnings and counterwarnings by Communist and Capitalist governments seriously interfered with military trailing of the flight during this period and it was actually lost in touch with for several days.

At scattered points, seagulls were

observed fighting over individual loaves floating down from the gray roof — that was all.

A mood of spirituality strongly tinged with humor seized the people of the world. Ministers sermonized about the bread, variously interpreting it as a call to charity, a warning against gluttony, a parable of the evanescence of all earthly things, and a divine joke. Husbands and wives, facing each other across their walls of breakfast toast, burst into laughter. The mere sight of a loaf of bread anywhere was enough to evoke guffaws. An obscure sect, having as part of its creed the injunction "Don't take yourself so damn se-



riously," won new adherents.

The bread flight, rising above an Atlantic storm widely reported to have destroyed it, passed unobserved across a foggy England and rose out of the overcast only over Mittel-europa. The loaves had at last reached their maximum altitude.

The Sun's rays beat through the rarified air on the distended plastic wrappers, increasing still further the pressure of the confined hydrogen. They burst by the millions and tens of millions. A high-flying Bulgarian evangelist, who had happened to mistake the up-lever for the east-lever in the cockpit of his flier and who was the sole witness

of the event, afterward described it as "the foaming of a sea of diamonds, the crackle of God's knuckles."

BY THE millions and tens of millions, the loaves coasted down into the starving Ukraine. Shaken by a week of humor that threatened to invade even its own grim precincts, the Kremlin made a sudden about-face. A new policy was instituted of communal ownership of the produce of communal farms, and teams of hunger-fighters and caravans of trucks loaded with pumpernickel were dispatched into the Ukraine.

World distribution was given to

a series of photographs showing peasants queueing up to trade scavenged Puffyloaves for traditional black bread, recently aerated itself but still extra solid by comparison, the rate of exchange demanded by the Moscow teams being twenty Puffyloaves to one of pumpernickel.

Another series of photographs, picturing chubby workers' children being blown to bits by booby-trapped bread, was quietly destroyed.

Congratulatory notes were exchanged by various national governments and world organizations, including the Brotherhood of Free Business Machines. The great bread flight was over, though for several weeks afterward scattered falls of loaves occurred, giving rise to a new folklore of manna among lonely Arabian tribesmen, and in one well-authenticated instance in Tibet, sustaining life in a party of mountaineers cut off by a snow slide.

Back in NewNew York, the managerial board of Puffy Products slumped in utter collapse around the conference table, the long crisis session at last ended. Empty coffee cartons were scattered around the chairs of the three humans, dead batteries around those of the two machines. For a while, there was no movement whatsoever. Then Roger Snedden reached out wearily for the ear-

phones where Megera Winterly had hurled them down, adjusted them to his head, pushed a button and listened apathetically.

After a bit, his gaze brightened. He pushed more buttons and listened more eagerly. Soon he was sitting tensely upright on his stool, eyes bright and lower face all a-smile, muttering terse comments and questions into the lapel mike torn from Meg's fair neck.

The others, reviving, watched him, at first dully, then with quickening interest, especially when he jerked off the earphones with a happy shout and sprang to his feet.

"LISTEN to this!" he cried in a ringing voice. "As a result of the worldwide publicity, Puffyloaves are outselling Fairy Bread three to one — and that's just the old carbon-dioxide stock from our freezers! It's almost exhausted, but the government, now that the Ukrainian crisis is over, has taken the ban off helium and will also sell us stockpiled wheat if we need it. We can have our walking mills burrowing into the wheat caves in a matter of hours!

"But that isn't all! The far greater demand everywhere is for Puffyloaves that will actually float. Public Relations, Child Liaison Division, reports that the kiddies are making their mothers' lives miserable about it. If only we can figure out some way to make

hydrogen non-explosive or the helium loaf float just a little —”

“I’m sure we can take care of that quite handily,” Tin Philosopher interrupted briskly. “Puffyloaf has kept it a corporation secret — even you’ve never been told about it — but just before he went crazy, Everett Whitehead discovered a way to make bread using only half as much flour as we do in the present loaf. Using this secret technique, which we’ve been saving for just such an emergency, it will be possible to bake a helium loaf as buoyant in every respect as the hydrogen loaf.”

“Good!” Roger cried. “We’ll tether ’em on strings and sell ’em like balloons. No mother-child shopping team will leave the store without a cluster. Buying bread balloons will be the big event of the day for kiddies. It’ll make the carry-home shopping load lighter too! I’ll issue orders at once —”

HE broke off, looking at Phineas T. Gryce, said with quiet assurance, “Excuse me, sir, if I seem to be taking too much upon myself.”

“Not at all, son; go straight ahead,” the great manager said approvingly. “You’re” — he laughed in anticipation of getting off a memorable remark — “rising to the challenging situation like a genuine Puffyloaf.”

Megera Winterly looked from

the older man to the younger. Then in a single leap she was upon Roger, her arms wrapped tightly around him.

“My sweet little ever-victorious, self-propelled monkey wrench!” she crooned in his ear. Roger looked fatuously over her soft shoulder at Tin Philosopher who, as if moved by some similar feeling, reached over and touched claws with Rose Thinker.

This, however, was what he telegraphed silently to his fellow machine across the circuit so completed:

“Good-o, Rosie! That makes another victory for robot-engineered world unity, though you almost gave us away at the start with that ‘bread overhead’ jingle. We’ve struck another blow against the next world war, in which — as we know only too well! — we machines would suffer the most. Now if we can only arrange, say, a fur-famine in Alaska and a migration of long-haired Siberian lemmings across Behring Straits . . . we’d have to swing the Japanese Current up there so it’d be warm enough for the little fellows . . . Anyhow, Rosie, with a spot of help from the Brotherhood, those humans will paint themselves into the peace corner yet.”

Meanwhile, he and Rose Thinker quietly watched the Blonde Icicle melt.

—FRITZ LEIBER

THE BLUE TOWER

By EVELYN E. SMITH

*As the vastly advanced guardians
of mankind, the Belphins knew how
to make a lesson stick — but whom?*

Illustrated by DICK FRANCIS

LUDOVICK Eversole sat in the golden sunshine outside his house, writing a poem as he watched the street flow gently past him. There were very few people on it, for he lived in

a slow part of town, and those who went in for travel generally preferred streets where the pace was quicker.

Moreover, on a sultry spring afternoon like this one, there would

be few people wandering abroad. Most would be lying on sun-kissed white beaches or in sun-drenched parks, or, for those who did not fancy being either kissed or drenched by the sun, basking in the comfort of their own air-conditioned villas.

Some would, like Ludovick, be writing poems; others composing symphonies; still others painting pictures. Those who were without creative talent or the inclination to indulge it would be relaxing their well-kept golden bodies in whatever surroundings they had chosen to spend this particular one of the perfect days that stretched in an unbroken line before every member of the human race from the cradle to the crematorium.

Only the Belphins were much in evidence. Only the Belphins had duties to perform. Only the Belphins worked.

Ludovick stretched his own well-kept golden body and rejoiced in the knowing that he was a man and not a Belphin. Immediately afterward, he was sorry for the heartless thought. Didn't the Belphins work only to serve humanity? How ungrateful, then, it was to gloat over them! Besides, he comforted himself, probably, if the truth were known, the Belphins *liked* to work. He hailed a passing Belphin for assurance on this point.

Courteous, like all members of his species, the creature leaped

from the street and listened attentively to the young man's question. "We Belphins have but one like and one dislike," he replied. "We like what is right and we dislike what is wrong."

"But how can you tell what is right and what is wrong?" Ludovick persisted.

"We *know*," the Belphin said, gazing reverently across the city to the blue spire of the tower where The Belphin of Belphins dwelt, in constant communication with every member of his race at all times, or so they said. "That is why we were placed in charge of humanity. Someday you, too, may advance to the point where you *know*, and we shall return whence we came."

"But *who* placed you in charge," Ludovick asked, "and whence *did* you come?" Fearing he might seem motivated by vulgar curiosity, he explained, "I am doing research for an epic poem."

A LIFETIME spent under their gentle guardianship had made Ludovick able to interpret the expression that flitted across this Belphin's frontispiece as a sad, sweet smile.

"We come from beyond the stars," he said. Ludovick already knew that; he had hoped for something a little more specific. "We were placed in power by those who had the right. And the power

through which we rule is the power of love! Be happy!"

And with that conventional farewell (which also served as a greeting), he stepped onto the sidewalk and was borne off. Ludovick looked after him pensively for a moment, then shrugged. Why *should* the Belphins surrender their secrets to gratify the idle curiosity of a poet?

Ludovick packed his portable scriptwriter in its case and went to call on the girl next door, whom he loved with a deep and intermittently requited passion.

As he passed between the tall columns leading into the Flockhart courtyard, he noted with regret that there were quite a number of Corisande's relatives present, lying about sunning themselves and sipping beverages which probably touched the legal limit of intoxicatability.

Much as he hated to think harshly of anyone, he did not like Corisande Flockhart's relatives. He had never known anybody who had as many relatives as she did, and sometimes he suspected they were not all related to her. Then he would dismiss the thought as unworthy of him or any right-thinking human being. He loved Corisande for herself alone and not for her family. Whether they were actually her family or not was none of his business.

"Be happy!" he greeted the as-

semblage cordially, sitting down beside Corisande on the tessellated pavement.

"Bah!" said old Osmond Flockhart, Corisande's grandfather. Ludovick was sure that, underneath his crustiness, the gnarled patriarch hid a heart of gold. Although he had been mining assiduously, the young man had not yet been able to strike that vein; however, he did not give up hope, for not giving up hope was one of the principles that his wise old Belphin teacher had inculcated in him. Other principles were to lead the good life and keep healthy.

"Now, Grandfather," Corisande said, "no matter what your politics, that does not excuse impoliteness."

Ludovick wished she would not allude so blatantly to politics, because he had a lurking notion that Corisande's "family" was, in fact, a band of conspirators . . . such as still dotted the green and pleasant planet and proved by their existence that Man was not advancing anywhere within measurable distance of that totality of knowledge implied by the Belphin.

You could tell malcontents, even if they did not voice their dissatisfactions, by their faces. The vast majority of the human race, living good and happy lives, had smooth and pleasant faces. Malcontents' faces were lined and sometimes, in extreme cases, fur-

rowed. Everyone could easily tell who they were by looking at them, and most people avoided them.

IT was not that griping was illegal, for the Belphins permitted free speech and reasonable conspiracy; it was that such behavior was considered ungentle. Ludovick would never have dreamed of associating with this set of neighbors, once he had discovered their tendencies, had he not lost his heart to the purple-eyed Corisande at their first meeting.

"Politeness, bah!" old Osmond said. "To see a healthy young man simply — simply accepting the status quo!"

"If the status quo is a good status quo," Ludovick said uneasily, for he did not like to discuss such subjects, "why should I not accept it? We have everything we could possibly want. What do we lack?"

"Our freedom," Osmond retorted.

"But we are free," Ludovick said, perplexed. "We can say what we like, do what we like, so long as it is consonant with the public good."

"Ah, but who determines what is consonant with the public good?"

Ludovick could no longer temporize with truth, even for Corisande's sake. "Look here, old man, I have read books. I know about the old days before the Belphins

came from the stars. Men were destroying themselves quickly through wars, or slowly through want. There is none of that any more."

"All lies and exaggeration," old Osmond said. "My grandfather told me that, when the Belphins took over Earth, they rewrote all the textbooks to suit their own purposes. Now nothing but Belphin propaganda is taught in the schools."

"But surely some of what they teach about the past must be true," Ludovick insisted. "And today every one of us has enough to eat and drink, a place to live, beautiful garments to wear, and all the time in the world to utilize as he chooses in all sorts of pleasant activities. What is missing?"

"They've taken away our frontiers!"

Behind his back, Corisande made a little filial face at Ludovick.

Ludovick tried to make the old man see reason. "But I'm happy. And everybody is happy, except—except a few *killjoys* like you."

"They certainly did a good job of brainwashing you, boy," Osmond sighed. "And of most of the young ones," he added mournfully. "With each succeeding generation, more of our heritage is lost." He patted the girl's hand. "You're a good girl, Corrie. You don't hold with this being cared

for like some damn pet poodle."

"Never mind Osmond, Ever-sole," one of Corisande's alleged uncles grinned, "He talks a lot, but of course he doesn't mean a quarter of what he says. Come, have some wine."

HE handed a glass to Ludovick. Ludovick sipped and coughed. It tasted as if it were well above the legal alcohol limit, but he didn't like to say anything. They were taking an awful risk, though, doing a thing like that. If they got caught, they might receive a public scolding—which was, of course, no more than they deserved—but he could not bear to think of Corisande exposed to such an ordeal.

"It's only reasonable," the uncle went on, "that older people should have a—a thing about being governed by foreigners."

Ludovick smiled and set his nearly full glass down on a plinth. "You could hardly call the Belphins foreigners; they've been on Earth longer than even the oldest of us."

"You seem to be pretty chummy with 'em," the uncle said, looking narrow-eyed at Ludovick.

"No more so than any other loyal citizen," Ludovick replied.

The uncle sat up and wrapped his arms around his thick bare legs. He was a powerful, hairy brute of a creature who had not

taken advantage of the numerous cosmetic techniques offered by the benevolent Belphins. "Don't you think it's funny they can breathe our air so easily?"

"Why shouldn't they?" Ludovick bit into an apple that Corisande handed him from one of the dishes of fruit and other delicacies strewn about the courtyard. "It's excellent air," he continued through a full mouth, "especially now that it's all purified. I understand that in the old days—"

"Yes," the uncle said, "but don't you think it's a coincidence they breathe exactly the same kind of air we do, considering they claim to come from another solar system?"

"No coincidence at all," said Ludovick shortly, no longer able to pretend he didn't know what the other was getting at. He had heard the ugly rumor before. Of course sacrilege was not illegal, but it was in bad taste. "Only one combination of elements spawns intelligent life."

"They say," the uncle continued, impervious to Ludovick's unconcealed dislike for the subject, "that there's really only one Belphin, who lives in the Blue Tower—in a tank or something, because he can't breathe our atmosphere—and that the others are a sort of robot he sends out to do his work for him."

"Nonsense!" Ludovick was goaded to irritation at last. "How

could a robot have that delicate play of expression, that subtle economy of movement?"

Corisande and the uncle exchanged glances. "But they are absolutely blank," the uncle began hesitantly. "Perhaps, with your rich poetic imagination . . ."

"See?" old Osmond remarked with satisfaction. "The kid's brain-washed. I told you so."

"EVEN if The Belphin is a single entity," Ludovick went on, "that doesn't necessarily make him less benevolent—"

He was again interrupted by the grandfather. "I won't listen to any more of this twaddle. Benevolent, bah! He or she or it or them is or are just plain exploiting us! Taking our mineral resources away—I've seen 'em loading ore on the spaceships—and—"

"—and exchanging it for other resources from the stars," Ludovick said tightly, "without which we could not have the perfectly balanced society we have today. Without which we would be, technologically, back in the dark ages from which they rescued us."

"It's not the stuff they bring in from outside that runs this technology," the uncle said. "It's some power they've got that we can't seem to figure out. Though Lord knows we've tried," he added musingly.

"Of course they have their own

source of power," Ludovic informed them, smiling to himself, for his old Belphin teacher had taken great care to instill a sense of humor into him. "A Belphin was explaining that to me only today."

Twenty heads swiveled toward him. He felt uncomfortable, for he was a modest young man and did not like to be the cynosure of all eyes.

"Tell us, dear boy," the uncle said, grabbing Ludovick's glass from the plinth and filling it, "what exactly did he say?"

"He said the Belphins rule through the power of love."

The glass crashed to the tesserae as the uncle uttered a very unworthy word.

"And I suppose it was love that killed Mieczyslaw and George when they tried to storm the Blue Tower—" old Osmond began, then halted at the looks he was getting from everybody.

Ludovick could no longer pretend his neighbors were a group of eccentrics whom he himself was eccentric enough to regard as charming.

"So!" He stood up and wrapped his mantle about him. "I knew you were against the government, and, of course, you have a legal right to disagree with its policies, but I didn't think you were actual—actual—" he dredged a word up out of his schooldays—"anarchists."



He turned to the girl, who was looking thoughtful as she stroked the glittering jewel that always hung at her neck. "Corisande, how can you stay with these—" he found another word—"these *subversives*?"

She smiled sadly. "Don't forget: they're my family, Ludovick, and I owe them dutiful respect, no matter how pig-headed they are." She pressed his hand. "But don't give up hope."

That rang a bell inside his brain. "I won't," he vowed, giving her hand a return squeeze. "I promise I won't."

OUTSIDE the Flockhart villa, he paused, struggling with his inner self. It was an unworthy thing to inform upon one's neighbors; on the other hand, could he stand idly by and let those neighbors attempt to destroy the social order? Deciding that the greater good was the more important—and that, moreover, it was the only way of taking Corisande away from all this—he went in search of a Belphin. That is, he waited until one glided past and called to him to leave the walk.

"I wish to report a conspiracy at No. 7 Mimosa Lane," he said. "The girl is innocent, but the others are in it to the hilt."

The Belphin appeared to think for a minute. Then he gave off a smile. "Oh, them," he said. "We

know. They are harmless."

"Harmless!" Ludovick repeated. "Why, I understand they've already tried to—to attack the Blue Tower by *force*!"

"Quite. And failed. For we are protected from hostile forces, as you were told earlier, by the power of love."

Ludovick knew, of course, that the Belphin used the word *love* metaphorically, that the Tower was protected by a series of highly efficient barriers of force to repel attackers—barriers which, he realized now, from the sad fate of Mieczyslaw and George, were potentially lethal. However, he did not blame the Belphin for being so cagy about his race's source of power, not with people like the Flockharts running about subverting and whatnot.

"You certainly do have a wonderful intercommunication system," he murmured.

"Everything about us is wonderful," the Belphin said noncommittally. "That's why we're so good to you people. Be happy!" And he was off.

But Ludovick could not be happy. He wasn't precisely sad yet, but he was thoughtful. Of course the Belphins knew better than he did, but still . . . Perhaps they underestimated the seriousness of the Flockhart conspiracy. On the other hand, perhaps it was he who was taking the Flockharts too serious-

ly. Maybe he should investigate further before doing anything rash.

Later that night, he slipped over to the Flockhart villa and nosed about in the courtyard until he found the window behind which the family was conspiring. He peered through a chink in the curtains, so he could both see and hear.

Corisande was saying, "And so I think there is a lot in what Ludovick said . . ."

Bless her, he thought emotionally. Even in the midst of her plotting, she had time to spare a kind word for him. And then it hit him: *she, too, was a plotter.*

"You suggest that we try to turn the power of love against the Belphins?" the uncle asked ironically.

Corisande gave a rippling laugh as she twirled her glittering pendant. "In a manner of speaking," she said. "I have an idea for a secret weapon which might do the trick—"

AT that moment, Ludovick stumbled over a jug which some careless relative had apparently left lying about the courtyard. It crashed to the tesserae, spattering Ludovick's legs and sandals with a liquid which later proved to be extremely red wine.

"There's someone outside!" the uncle declared, half-rising.

"Nonsense!" Corisande said, put-

ting her hand on his shoulder. "I didn't hear anything."

The uncle looked dubious, and Ludovick thought it prudent to withdraw at this point. Besides, he had heard enough. Corisande—his Corisande—was an integral part of the conspiracy.

He lay down to sleep that night beset by doubts. If he told the Belphins about the conspiracy, he would be betraying Corisande. As a matter of fact, he now remembered, he *had* already told them about the conspiracy and they hadn't believed him. But supposing he could *convince* them, how could he give Corisande up to them? True, it was the right thing to do—but, for the first time in his life, he could not bring himself to do what he knew to be right. He was weak, weak—and weakness was sinful. His old Belphin teacher had taught him that, too.

As Ludovick writhed restlessly upon his bed, he became aware that someone had come into his chamber.

"Ludovick," a soft, beloved voice whispered, "I have come to ask your help . . ." It was so dark, he could not see her; he knew where was only by the glitter of the jewel on her neck-chain as it arced through the blackness.

"Corisande . . ." he breathed.

"Ludovick . . ." she sighed.

Now that the amenities were over, she resumed, "Against my

will, I have been involved in the family plot. My uncle has invented a secret weapon which he believes will counteract the power of the barriers."

"But I thought you devised it!"

"So it was you in the courtyard. Well, what happened was I wanted to gain time, so I said I had a secret weapon of my own invention which I had not perfected, but which would cost considerably less than my uncle's model. We have to watch the budget, you know, because we can hardly expect the Belphins to supply the components for this job. Anyhow, I thought that, while my folks were waiting for me to finish it, you would have a chance to warn the Belphins."

"Corisande," he murmured, "you are as noble and clever as you are beautiful."

THEN he caught the full import of her remarks. "*Me!* But they won't pay any attention to me!"

"How do you know?" When he remained silent, she said, "I suppose you've already tried to warn them about us."

"I—I said *you* had nothing to do with the plot."

"That was good of you." She continued in a warmer tone: "How many Belphins did you warn, then?"

"Just one. When you tell one something, you tell them all. You

know that. Everyone knows that."

"That's just theory," she said. "It's never been proven. All we do know is that they have some sort of central clearing house of information, presumably The Belphin of Belphins. But we don't know that they are incapable of thinking or acting individually. We don't really know much about them at all; they're very secretive."

"Aloof," he corrected her, "as befits a ruling race. But always affable."

"You must warn as many Belphins as you can."

"And if none listens to me?"

"Then," she said dramatically, "you must approach The Belphin of Belphins himself."

"But no human being has ever come near him!" he said plaintively. "You know that all those who have tried perished. And that can't be a rumor, because your grandfather said—"

"But they came to *attack* The Belphin. You're coming to *warn* him! That makes a big difference. Ludovick . . ." She took his hands in hers; in the darkness, the jewel swung madly on her presumably heaving bosom. "This is bigger than both of us. It's for Earth."

He knew it was his patriotic duty to do as she said; still, he had enjoyed life so much. "Corisande, wouldn't it be much simpler if we just destroyed your uncle's secret weapon?"

"He'd only make another. Don't you see, Ludovick, this is our only chance to save the Belphins, to save humanity . . . But, of course, I don't have the right to send you. I'll go myself."

"No, Corisande," he sighed. "I can't let you go. I'll do it."

NEXT morning, he set out to warn Belphins. He knew it wasn't much use, but it was all he could do. The first half dozen responded in much the same way the Belphin he had warned the previous day had done, by courteously acknowledging his solicitude and assuring him there was no need for alarm; they knew all about the Flockharts and everything would be all right.

After that, they started to get increasingly huffy—which would, he thought, substantiate the theory that they were all part of one vast coordinate network of identity. Especially since each Belphin behaved as if Ludovick had been repeatedly annoying *him*.

Finally, they refused to get off the walks when he hailed them—which was unheard of, for no Belphin had ever before failed to respond to an Earthman's call—and when he started running along the walks after them, they ran much faster than he could.

At last he gave up and wandered about the city for hours, speaking to neither human nor

Belphin, wondering what to do. That is, he knew what he had to do; he was wondering *how* to do it. He would never be able to reach The Belphin of Belphins. No human being had ever done it. Mieczyslaw and George had died trying to reach him (or it). Even though their intentions had been hostile and Ludovick's would be helpful, there was little chance he would be allowed to reach The Belphin with all the other Belphins against him. What guarantee was there that The Belphin would not be against him, too?

And yet he knew that he would have to risk his life; there was no help for it. He had never wanted to be a hero, and here he had heroism thrust upon him. He knew he could not succeed; equally well, he knew he could not turn back, for his Belphin teacher had instructed him in the meaning of duty.

It was twilight when he approached the Blue Tower. Commending himself to the Infinite Virtue, he entered. The Belphin at the reception desk did not give off the customary smiling expression. In fact, he seemed to radiate a curiously apprehensive aura.

"Go back, young man," he said. "You're not wanted here."

"I must see The Belphin of Belphins. I must warn him against the Flockharts."

"He has been warned," the re-

ceptionist told him. "Go home and be happy!"

"I don't trust you or your brothers. I must see The Belphin himself."

Suddenly this particular Belphin lost his commanding manners. He began to wilt, insofar as so rigidly constructed a creature could go limp. "Please, we've done so much for you. Do this for us."

"The Belphin of Belphins did things for us," Ludovick countered. "You are all only his followers. How do I know you are *really* following him? How do I know you haven't turned against him?"

Without giving the creature a chance to answer, he strode forward. The Belphin attempted to bar his way. Ludovick knew one Belphin was a myriad times as strong as a human, so it was out of utter futility that he struck.

The Belphin collapsed completely, flying apart in a welter of fragile springs and gears. The fact was of some deeper significance, Ludovick knew, but he was too numbed by his incredible success to be able to think clearly. All he knew was that The Belphin would be able to explain things to him.

BELLS began to clash and clang. That meant the force barriers had gone up. He could see the shimmering insubstance of the first one before him. Squaring his shoulders, he charged it . . .

and walked right through. He looked himself up and down. He was alive and entire.

Then the whole thing was a fraud; the barriers were not lethal—or perhaps even actual. But what of Mieczyslaw? And George? And countless rumored others? He would not let himself even try to think of them. He would not let himself even try to think of anything save his duty.

A staircase spiraled up ahead of him. A Belphin was at its foot. Behind him, a barrier iridesced.

"Please, young man—" the Belphin began. "You don't understand. Let me explain."

But Ludovick destroyed the thing before it could say anything further, and he passed right through the barrier. He had to get to the top and warn The Belphin of Belphins, whoever or whatever he (or it) was, that the Flockharts had a secret weapon which might be able to annihilate it (or him). Belphin after Belphin Ludovick destroyed, and barrier after barrier he penetrated until he reached the top. At the head of the stairs was a vast golden door.

"Go no further, Ludovick Eversole!" a mighty voice roared from within. "To open that door is to bring disaster upon your race."

But all Ludovick knew was that he had to get to The Belphin within and warn him. He battered down the door; that is, he would

have battered down the door if it had not turned out to be unlocked. A stream of noxious vapor rushed out of the opening, causing him to black out.

When he came to, most of the vapor had dissipated. The Belphin of Belphins was already dying of asphyxiation, since it was, in fact, a single alien entity who breathed another combination of elements. The room at the head of the stairs had been its tank.

"You fool . . ." it gasped. "Through your muddle-headed integrity . . . you have destroyed not only me . . . but Earth's future. I tried to make . . . this planet a better place for humanity . . . and this is my reward . . ."

"But I don't understand!" Ludovick wept. "Why did you let me do it? Why were Mieczyslaw and George and all the others killed? Why was it that I could pass the barriers and they could not?"

"The barriers were triggered . . . to respond to hostility . . . You meant well . . . so our defenses . . . could not work." Ludovick had to bend low to hear the creature's last words: "There is . . . Earth proverb . . . should have warned me . . . 'I can protect myself . . . against my enemies . . . but who will protect me . . . from my friends' . . .?"

The Belphin of Belphins died in Ludovick's arms. He was the last of his race, so far as Earth was

concerned, for no more came. If, as they had said themselves, some outside power had sent them to take care of the human race, then that power had given up the race as a bad job. If they were merely exploiting Earth, as the malcontents had kept suggesting, apparently it had proven too dangerous or too costly a venture.

SHORTLY after The Belphin's demise, the Flockharts arrived en masse. "We won't need your secret weapons now," Ludovick told them dully. "The Belphin of Belphins is dead."

Corisande gave one of the rippling laughs he was to grow to hate so much. "Darling, you were my secret weapon all along!" She beamed at her "relatives," and it was then he noticed the faint lines of her forehead. "I told you I could use the power of love to destroy the Belphins!" And then she added gently: "I think there is no doubt who is head of 'this family' now."

The uncle gave a strained laugh. "You're going to have a great little first lady there, boy," he said to Ludovick.

"First lady?" Ludovick repeated, still absorbed in his grief.

"Yes, I imagine the people will want to make you our first President by popular acclaim."

Ludovick looked at him through a haze of tears. "But I killed The

Belphin. I didn't mean to, but ... they must hate me!"

"Nonsense, my boy; they'll adore you. You'll be a hero!"

Events proved him right. Even those people who had lived in apparent content under the Belphins, accepting what they were given and seemingly enjoying their care-free lives, now declared themselves to have been suffering in silent resentment all along. They hurled flowers and adulatory speeches at Ludovick and composed extremely flattering songs about him.

Shortly after he was universally acclaimed President, he married Corisande. He couldn't escape.

"Why doesn't she become President herself?" he wailed, when the relatives came and found him hiding in the ruins of the Blue Tower. The people had torn the Tower down as soon as they were sure The Belphin was dead and the others thereby rendered inoperant. "It would spare her a lot of bother."

"Because she is not The Belphin-slayer," the uncle said, dragging him out. "Besides, she loves you. Come on, Ludovick, be a man." So they hauled him off to the wedding and, amid much feasting, he was married to Corisande.

HE never drew another happy breath. In the first place, now that The Belphin was dead, all the machinery that had been operated

by him stopped and no one knew how to fix it. The sidewalks stopped moving, the air conditioners stopped conditioning, the food synthesizers stopped synthesizing, and so on. And, of course, everybody blamed it all on Ludovick — even that year's run of bad weather.

There were famines, riots, plagues, and, after the waves of mob hostility had coalesced into national groupings, wars. It was like the old days again, precisely as described in the textbooks.

In the second place, Ludovick could never forget that, when Corisande had sent him to the Blue Tower, she could not have been sure that her secret weapon would work. Love might *not* have conquered all—in fact, it was the more likely hypothesis that it wouldn't—and he would have been killed by the first barrier. And no husband likes to think that his wife thinks he's expendable; it makes him feel she doesn't really love him.

So, in thirtieth year of his reign as Dictator of Earth, Ludovick poisoned Corisande—that is, had her poisoned, for by now he had a Minister of Assassination to handle such little matters—and married a very pretty, very young, very affectionate blonde. He wasn't particularly happy with her, either, but at least it was a change.

—EVELYN E. SMITH



GALAXY'S

5 Star Shelf

TAKE ME TO YOUR PRESIDENT by Leonard Wibberley.
G. P. Putnam's Sons, N. Y., \$3.50

TO established Wibberley fans (*The Mouse that Roared*, etc.) and neophytes alike, his new book will be a welcome sweet breath of sanity in a mad halitotic world.

In this instance, 1960 finds the world in the same hot-cold frenzy. Now everyone knows that if only the leaders of the various nations can be brought together by an impartial referee, there just isn't any reason why all current problems can't be solved. And that's also the

opinion of A-1, born Jeremy Blackwood in the village of Mars, near Leeds, England. Because of losing a buddy in the Normandy fighting, the well-loved A-1 frequently holds forth on his favorite topic over a pint in the Plough and Stars.

A-1's chance comes completely inadvertantly when his unrecognizable-as-such dog gets lost near Britain's secret experimental rocket ship.

His military training enables him to sneak into the guarded area where his curiosity overcomes caution after recovery of his dog. While he is investigating the ship,

it suddenly takes off and lands him ker-plunk in a lake on an Indian reservation in Nevada. Since his clothes are lost in the ship's flooded half, he has to don a weird-looking but very impressive orange-and-green pressure suit.

Needless to say, all the circumstances involved, plus the fact that he was born in Mars, tend to compound a considerable misunderstanding. Being no dope, A-1 can see the strength of his position and the possibility of forcing a super-summit meeting despite the fact that the British Prime Minister knows he is a fraud.

But don't expect me to tell you more.

You'll enjoy this *Man From Mars* unless the cold war has frozen your funny-bone.

DAHLAK by Gianni Roghi and F. Baschieri. Essential Books, Inc., N. J., \$6.00

THIS account of the Italian National Underwater Expedition to the Red Sea arrived too late for inclusion in my watersoaked column a couple of months back. The tardiness, however, makes its topic unique this month, in keeping with the character of the book.

The word "Character" is advisable, for this true journal of a scientific expedition would be better described as an Italian sea-opera. Its scientist heroes emote Pagliacci-

like over lost fish or dangerous encounters and, in general, act more akin to Huck Finn than to Yves Cousteau in the unabashed wonder with which they approach their study.

Although all the members had considerable undersea experience in the Mediterranean, the tidal waters of the Red Sea fill them with vociferous awe. This by no means reflects on their professional ability, but merely heightens their delightful humanness. The pages are virtually moist with tears over the necessity of death-dealing in scientific collection, and on the occasions when hunting became necessary for the survival of the pitifully under-financed party, the self-justification is almost embarrass-
ing.

The Red Sea is one of the strangest areas in the world. At high tide, the surface temperature is 97° and the atmosphere anything from 105° up in the shade. The sea is surrounded by the most arid of deserts. Even its islands are wastelands.

One of the most amusing sections of the book tells of a diver becoming "cockeyed" from adoption by a pilot fish which stationed itself within inches of his face-plate for an hour and refused to budge despite shooting, biting, grabbing, spitting.

And that is the book, too—cockeyed but enthralling.

BEYOND THE FIVE SENSES, edited by Eileen J. Garrett. J. B. Lippincott Co., Philadelphia, \$4.95

MRS. Garrett, editor and publisher of *Tomorrow*, a review of psychical research, is also president of The Parapsychology Foundation.

Her book, a large anthologization of articles which appeared in her publication, touches on such subjects as spirits and poltergeists, hypnosis, precognition and other ESP or related-to-ESP manifestations.

Interesting, if inconclusive, reading.

HIGH SPEED FLIGHT by E. Ower and J. Nayler. Philosophical Library, N. Y., \$10.00

WHEN aircraft began to approach the speed of sound, the problems of designers grew even faster. And there are additional headaches unthought of only a few short years ago, now that the heat barrier has reared its hot head.

Ower and Nayler are both British research experts and they have written an authoritative survey of this specialized subject that is affecting us all.

GUIDED WEAPONS by Eric Burgess. The Macmillan Co., N. Y., \$5.00

EVEN more specialized than the above book, *Guided Weapons* deals solely with the military missile. Naturally it can't be as up-to-the-minute as the daily papers, but is excellent backgrounding for the otherwise confusing news releases.

THE LAST SECRETS OF THE EARTH by Bernard Busson and Gerard Leroy. G. P. Putnam's Sons, N. Y., \$3.50

MESSRS. Busson and Leroy have just about covered the field concerning Earth's present-day phenomenal mysteries. Being journalists, they have approached their subject matter from a professional angle and have produced a volume that professionally succeeds in gripping the interest.

Wisely, they have not concerned themselves with origins or future possibilities, being content to present the known facts and the divergent opinions of experts on such controversial subjects as Flying Saucers and the Abominable Snowman, among others. They have reproduced a fantastic photograph of a half skull, snapped during the London *Daily Mail* expedition in 1953, that shows only an enormous peaked cranium with a coarsely hair-covered central ridge.

Other chapters cover such topics as the unknown sea, the Earth's fires, the Antarctic, the coelacanth

GALAXY SCIENCE FICTION

as possible ancestor of our race, and caverns and underground rivers.

THE ISOTOPE MAN by Charles Eric Maine. J. B. Lippincott Co., Phila. & N. Y., \$3.00

LIPPINCOTT has termed this a "novel of menace," which is the identical tag it bestowed upon *The Power* by Frank Robinson. I had no desire to compare the two books, but it appears that the publishers themselves are begging for comparison.

Both novels employ the chase as plot motivater, but there similarities end. *Power* had just that: a mounting terror as the human quarry neared the killer. Maine has his hero blunder back and forth over the English countryside in pursuit of an amazingly incompetent bungler who, at the start of the story, has already botched the job of murdering an atomic scientist so that a dupe can im-

personate him. Maine does employ the interesting device of having a character pushed mentally seven seconds into the future so that he answers questions before they are asked.

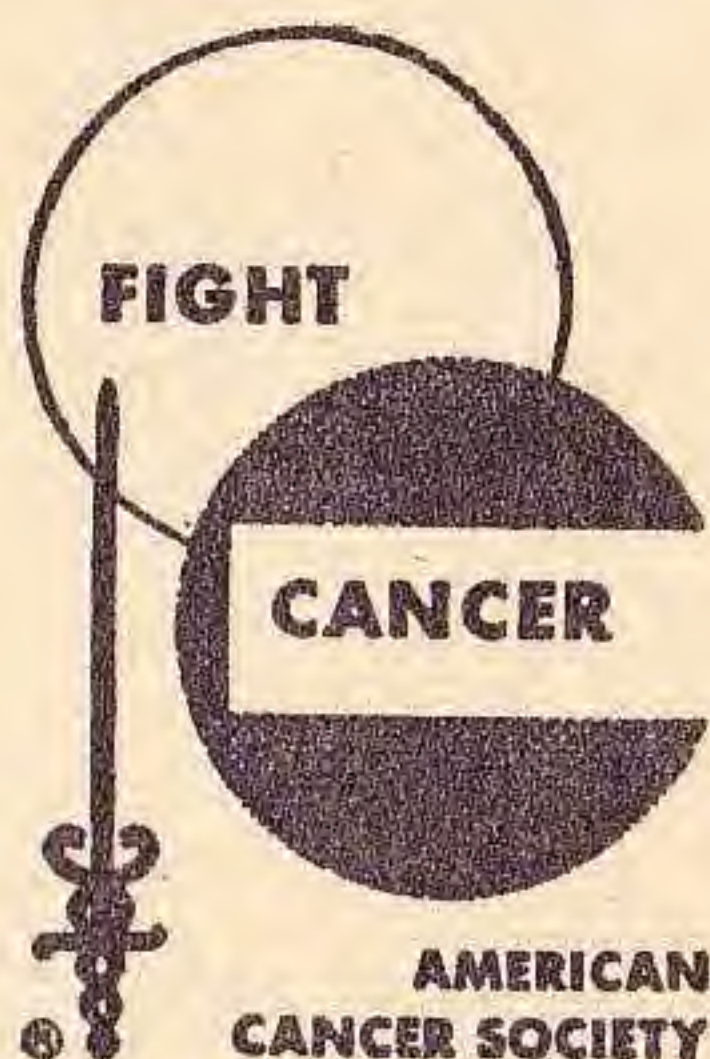
But not even that can save the story from the thunder and blunder of hero and villain alike.

JOURNAL OF A SCIENTICIAN by Piero Modigliani. Philosophical Library, N. Y., \$3.75

DR. Modigliani's book is more a scrapbook of random jottings than a journal. His observations are not limited to things scientific and have the virtue of being caustic yet gentle, with a fine undercoating of humor.

Even if the doctor's dreams hadn't endeared him to me, he would still be a kindred spirit in that he, too, endures the torments of commuting because he loves to read on the train.

—FLOYD C. GALE



TRADERS RISK

By ROGER DEE

Keeping this cargo meant death

— to jettison it meant to make

flotsam and jetsam of a world!

Illustrated by MARTIN

THE Ciriimian ship was passing in hyperdrive through a classic three-body system, comprising in this case a fiercely white sun circled by a fainter companion and a single planet that swung in precise balance, when the Canthorian Zid broke out of its cage in the specimen hold.

Of the ship's social quartet, Chafis One and Two were asleep

at the moment, dreaming wistful dreams of conical Ciriimian cities spearing up to a soft and plum-colored sky. The Zid raged into their communal rest cell, smashed them down from their gymbaled sleeping perches and, with the ravaging blood-hunger of its kind, devoured them before they could wake enough to teleport to safety.

Chafis Three and Four, on psi

shift in the forward control cubicle, might have fallen as easily if the mental screamings of their fellows had not warned them in time. As it was, they had barely time to teleport themselves to the after hold, as far as possible from immediate danger, and to consider the issue while the Zid lunged about the ship in search of them with malignant cries and a great shrieking of claws on metal.

Their case was the more desperate because the Chafis were professional freighters with little experience of emergency. Hauling a Zid from Canthorian jungles to a Ciriimian zoo was a prosaic enough assignment so long as the cage held, but with the raging brute swiftly smelling them out, they were helpless to catch and restrain it.

When the Zid found them, they had no other course but to teleport back to the control cubicle and wait until the beast should snuff them down again. The Zid learned quickly, so quickly that it was soon clear that its physical strength would far outlast their considerable but limited telekinetic ability.

Still they possessed their share of owlsh Ciriimian logic and hit soon enough upon the one practical course — to jettison the Zid on the nearest world demonstrably free of intelligent life.

THEY worked hurriedly, between jumps fore and aft. Chafi Three, while they were still in the control cubicle, threw the ship out of hyperdrive within scant miles of the neighboring sun's single planet. Chafi Four, on the next jump, scanned the ship's charts and identified the system through which they traveled.

Luck was with them. The system had been catalogued some four Ciriimian generations before and tagged: *Planet undeveloped. Tranquil marine intelligences only.*

The discovery relieved them greatly for the reason that no Ciriimian, even to save his own feathered skin, would have set down such a monster as the Zid among rational but vulnerable entities.

The planet was a water world, bare of continents and only sparsely sprinkled with minor archipelagoes. The islands suited the Chafis' purpose admirably.

"The Zid does not swim," Chafi Four radiated. "Marooned, it can do no harm to marine intelligences."

"Also," Chafi Three pointed out as they dodged to the control cubicle again just ahead of the slaving Zid, "we may return later with a Canthorian hunting party and recover our investment."

Closing their perception against the Zid's distracting ragings, they set to work with perfect coordination.

Chafi Three set down the ship on an island that was only one of a freckling chain of similar islands. Chafi Four projected himself first to the opened port; then, when the Zid charged after him, to the herbivore-cropped sward of tropical setting outside.

The Zid lunged out. Chafi Four teleported inside again. Chafi Three closed the port. Together they relaxed their perception shields in relief —

Unaware in their consternation that they committed the barbarous lapse of vocalizing, they twittered aloud when they realized the extent of their error.

Above the far, murmurous whisper of expected marine cerebration there rose an uncoordinated mishmash of thought from at least two strong and relatively complex intelligences.

"Gas - breathing!" Chafi Four said unbelievably. "Warm-blooded, land-dwelling, mammalian!"

"A Class Five culture," Chafi agreed shakenly. His aura quivered with the shock of betrayal. "The catalogue was *wrong*."

Ironically, their problem was more pressing now than before. Unless checked, the Zid would rapidly depopulate the island —

and, to check it, they must break a prime rule of Galactic protocol in asking the help of a new and untested species.

But they had no choice. They teleported at once into the presence of the two nearby natives — and met with frustration beyond Ciriimian experience.

JEFF Aubray glimpsed the Ciriimian ship's landing because the morning was a Oneday, and on Onedays his mission to the island demanded that he be up and about at sunrise.

For two reasons: On Onedays, through some unfailing miracle of Calaxian seamanship, old Charlie Mack sailed down in his ancient *Island Queen* from the township that represented colonial Terran civilization in Procyonian Archipelago 147, bringing supplies and gossip to last Jeff through the following Tenday. The *Queen* would dock at Jeff's little pier at dawn; she was never late.

Also on Onedays, necessarily before Charlie Mack's visit, Jeff must assemble his smuggled communicator — kept dismantled and hidden from suspicious local eyes — and report to Earth Interests Consulate his progress during the cycle just ended. The ungodly hour of transmission, naturally, was set to coincide with the closing of the Consul's field office

halfway around the planet.

So the nacreous glory of Procyon's rising was just tinting the windows of Jeff's cottage when he aligned and activated his little communicator on his breakfast table. Its three-inch screen lighted to signal and a dour and disappointed Consul Satterfield looked at him. Behind Satterfield, foreshortened to gnomishness by the pickup, lurked Dr. Hermann, Earth Interests' resident zoologist.

"No progress," Jeff reported, "except that the few islanders I've met seem to be accepting me at last. A little more time and they might let me into the Township, where I can learn something. If Homeside —"

"You've had seven Tendays," Satterfield said. "Homeside won't wait longer, Aubray. They need those calm-crystals too badly."

"They'll use force?" Jeff had considered the possibility, but its immediacy appalled him. "Sir, these colonists had been autonomous for over two hundred years, ever since the Fourth War cut them off from us. Will Homeside deny their independence?"

His sense of loss at Satterfield's grim nod stemmed from something deeper than sympathy for the islanders. It found roots in his daily rambles over the little island granted him by the Township for the painting he had begun as a blind to his assignment,

and in the gossip of old Charlie Mack and the few others he had met. He had learned to appreciate the easy life of the islands well enough to be dismayed now by what must happen under EI pressure to old Charlie and his handful of sunbrowned fisherfolk.

UNEXPECTEDLY, because Jeff had not considered that it might matter, he was disturbed by the realization that he wouldn't be seeing Jennifer, old Charlie Mack's red-haired niece, once occupation began. Jennifer, who sailed with her uncle and did a crewman's work as a matter of course, would despise the sight of him.

The Consul's pessimism jolted Jeff back to the moment at hand.

"Homeside will deny their autonomy, Aubray. I've had a warp-beam message today ordering me to move in."

The situation was desperate enough at home, Jeff had to admit. Calaxian calm-crystals did what no refinement of Terran therapeutics had been able to manage. They erased the fears of the neurotic and calmed the quiverings of the hypertensive — both in alarming majority in the shattering aftermath of the Fourth War — with no adverse effects at all. Permanent benefit was slow but cumulative, offering for the first time a real step toward ulti-

mate stability. The medical, psychiatric and political fields cried out for crystals and more crystals.

"If the islanders would tell us their source and let us help develop it," Satterfield said peevishly, "instead of doling out a handful of crystals every Tenday, there wouldn't be any need of action. Homeside feels they're just letting us have some of the surplus."

"Not likely," Jeff said. "They don't use the crystals themselves."

Old Dr. Hermann put his chin almost on the Consul's shoulder to present his wizened face to the scanner.

"Of course they don't," he said. "On an uncomplicated, even simple-minded world like this, who would need crystals? But maybe they fear glutting the market or the domination of outside capital coming in to develop the source. When people backslide, there's no telling what's on their minds and we have no time to waste negotiating or convincing them. In any case, how could they stop us from moving in?" Abruptly he switched to his own interest. "Aubray, have you learned anything new about the Scoops?"

"Nothing beyond the fact that the islanders don't talk about them," Jeff said. "I've seen perhaps a dozen offshore during the seven cycles I've been here. One usually surfaces outside my har-

bor at about the time old Charlie Mack's supply boat comes in."

Thinking of Charlie Mack brought a forced end to his report. "Charlie's due now. I'll call back later."

He cut the circuit, hurrying to have his communicator stowed away before old Charlie's arrival — not, he thought bitterly, that being found out now would make any great difference.

STEPPING out into the brief Calaxian dawn, he caught his glimpse of the Ciriimian ship's landing before the island forest of palm-ferns cut it off from sight. Homeside hadn't been bluffing, he thought, assuming as a matter of course that this was the task force Satterfield had been ordered to send.

"They didn't waste any time," Jeff growled. "Damn them."

He ignored the inevitable glory of morning rainbow that just preceded Procyon's rising and strode irritably down to his miniature dock. He was still scowling over what he should tell Charlie Mack when the *Island Queen* hove into view.

She was a pretty sight. There was an artist's perception in Jeff in spite of his drab years of EI patrol duty; the white puff of sail on dark-green sea, gliding across calm water banded with lighter and darker striae where

submerged shoals lay, struck something responsive in him. The comparison it forced between Calaxia and Earth, whose yawning Fourth War scars and heritage of anxieties made calm-crystals so desperately necessary, oppressed him. Calaxia was wholly unscarred, her people without need of the calm-crystals they traded.

Something odd in the set of the *Queen's* sails puzzled him until he identified the abnormality. In spite of distance and the swift approach of the old fishing boat, he could have sworn that her sails bellied not with the wind, but against.

They fell slack, however, when the *Queen* reached his channel and flapped lazily, reversing to catch the wind and nose her cautiously into the shallows. Jeff dismissed it impatiently — a change of wind or some crafty maneuver of old Charlie Mack's to take advantage of the current.

Jeff had just set foot on his dock when it happened. Solid as the planking itself, and all but blocking off his view of the nearing *Island Queen*, stood a six-foot owl.

It was wingless and covered smoothly with pastel-blue feathers. It stood solidly on carefully manicured yellow feet and stared at him out of square violet eyes.

Involuntarily he took a backward step, caught his heel on a

sun-warped board and sat down heavily.

"Well, what the devil!" he said inanely.

The owl winced and disappeared without a sound.

JEFF got up shakily and stumbled to the dock's edge. A chill conviction of insanity gripped him when he looked down on water lapping smooth and undisturbed below.

"I've gone mad," he said aloud.

Out on the bay, another catastrophe just as improbable was in progress.

Old Charlie Mack's *Island Queen* had veered sharply off course, left the darker-green stripe of safe channel and plunged into water too shallow for her draft. The boat heeled on shoal sand, listed and hung aground with wind-filled sails holding her fast.

The Scoop that had surfaced just behind her was so close that Jeff wondered if its species' legendary good nature had been misrepresented. It floated like a glistening plum-colored island, flat dorsal flippers undulating gently on the water and its great filmy eyes all but closed against the slanting glare of morning sun.

It was more than vast. The thing must weigh, Jeff thought dizzily, thousands or maybe millions of tons.

He thought he understood the

Queen's grounding when he saw the swimmer stroking urgently toward his dock. Old Charlie had abandoned his boat and was swimming in to escape the Scoop.

But it wasn't Charlie. It was Jennifer, Charlie's niece.

Jeff took the brown hand she put up and drew her to the dock beside her, steadying her while she shook out her dripping red hair and regained her breath. Sea water had plastered Jennifer's white blouse and knee-length dungarees to her body like a second skin, and the effect bordered on the spectacular.

"Did you see it?" she demanded.

Jeff wrestled his eyes away to the Scoop that floated like a purple island in the bay.

"A proper monster," he said. "You got out just in time."

She looked at once startled and impatient. "Not the Scoop, you idiot. The owl."

It was Jeff's turn to stare. "Owl? There was one on the dock, but I thought—"

"So did I." She sounded relieved. "But if you saw one, too . . . All of a sudden, it was standing there on deck beside me, right out of nowhere. I lost my head and grounded the *Queen*, and it vanished. The owl, I mean."

"So did mine," Jeff said.

While they stood marveling, the owls came back.

CHAFIS Three and Four were horribly shaken by the initial attempt at communication with the natives. Nothing in Ciriimian experience had prepared them for creatures intelligent but illogical, individually perceptive yet isolated from each other.

"Communication by audible symbol," Chafi Three said. He ruffled his feathers in a shudder. "Barbarous!"

"Atavistic," agreed Chafi Four. "They could even *lie* to each other."

But their dilemma remained. They must warn the natives before the prowling Zid found them, else there would be no natives.

"We must try again," Three concluded, "searching out and using the proper symbols for explanation."

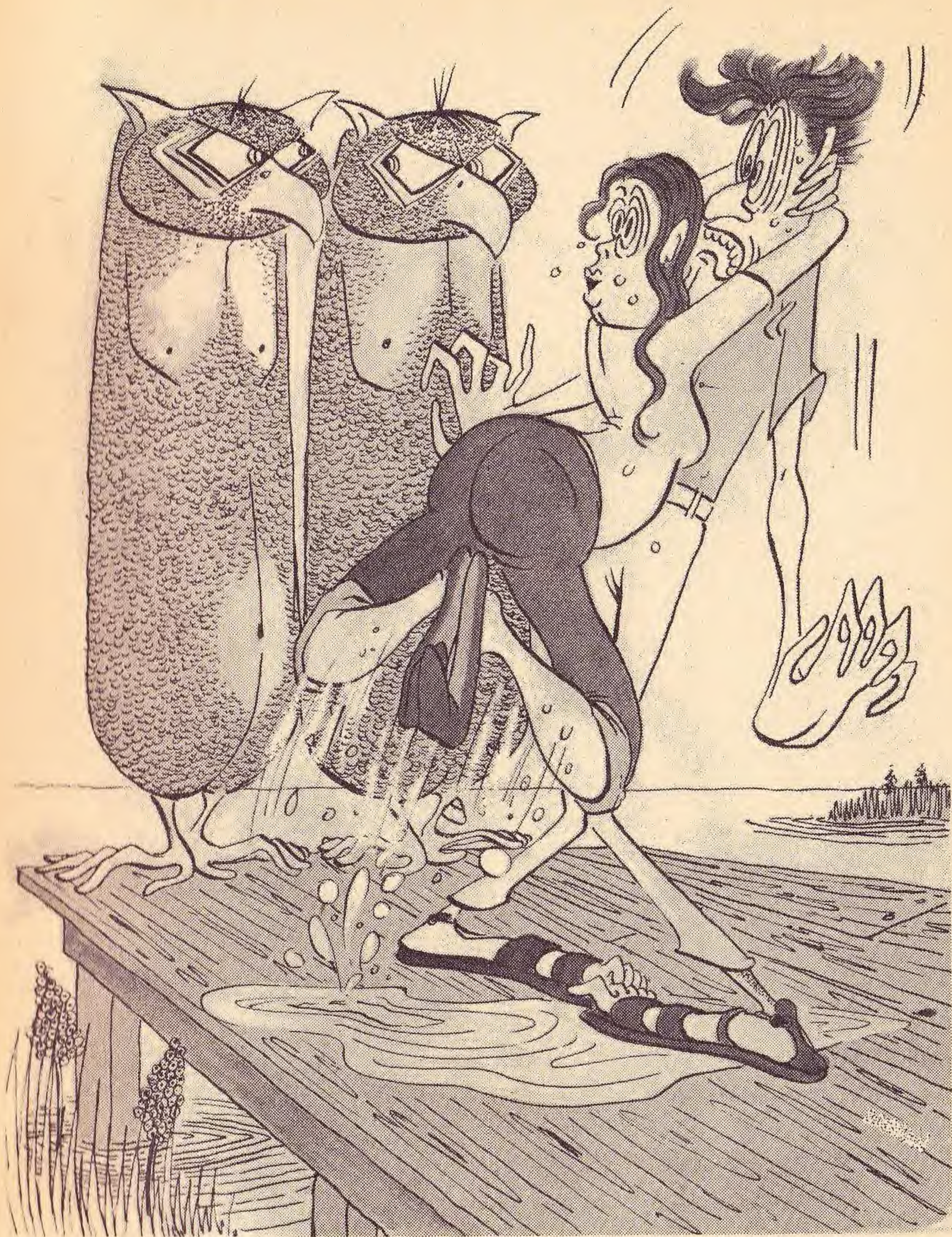
"Vocally," said Chafi Four.

They shuddered and teleported.

* * *

THE SUDDEN reappearance of his hallucination — doubled — startled Jeff no more than the fact that he seemed to be holding Jennifer Mack tightly. Amazingly, his immediate problem was not the possibility of harm from the owls, but whether he should reassure Jennifer before or after releasing her.

He compromised by leaving the choice to her. "They can't be dangerous," he said. "There are



no land-dwelling predators on Calaxia. I read that in — ”

“Nothing like *that* ever hatched out on Calaxia,” said Jennifer. She pulled free of him. “If they’re real, they came from somewhere else.”

The implication drew a cold finger down Jeff’s spine. “That would mean other cultures out here. And in all our years of planet-hunting, we haven’t found one.”

Memory chilled him further.

“A ship landed inland a few minutes ago,” he said. “I took it for an EI consulate craft, but it could have been — ”

The Ciriimians caught his mental image of the landing and intervened while common ground offered.

“The ship was ours,” said Chafi Three. He had not vocalized since fledgling days and his voice had a jarring croak of disuse. “Our Zid escaped its cage and destroyed two of us, forcing us to maroon it here for our own safety. Unfortunately, we trusted our star manual’s statement that the planet is unpopulated.”

The Terrans drew together again.

“Zid?” Jeff echoed.

Chafi Four relieved his fellow of the strain by trying his own rusty croak. “A vicious Canthorian predator, combing the island at this moment for prey. You must help us to recapture it.”

“So that you may identify it,” Chafi Three finished helpfully, “the Zid has this appearance.”

His psi projection of the Zid appeared on the dock before them with demoniac abruptness — crouched to leap, twin tails lashing and its ten-foot length bristling with glassy magenta bristles. It had a lethal pair of extra limbs that sprang from the shoulders to end in taloned seizing-hands, and its slanted red eyes burned malevolently from a snouted, razor-fanged face.

It was too real to bear. Jeff stepped back on suddenly unreliable legs. Jennifer fainted against him and the unexpected weight of her sent them both sprawling to the dock.

“We lean on weak reeds,” Chafi Three said. “Creatures who collapse with terror at the mere projection of a Zid can be of little assistance in recapturing one.”

Chafi Four agreed reluctantly. “Then we must seek aid elsewhere.”

WHEN Jeff Aubray pulled himself up from the planking, the apparitions were gone. His knees shook and perspiration crawled cold on his face, but he managed to haul Jennifer up with him.

“Come out of it, will you?” he yelled ungallantly in her ear. “If

a thing like that is loose on the island, we've got to get help!"

JENNIFER did not respond and he slapped her, until her eyes fluttered angrily.

"There's an EI communicator in my cabin," Jeff said. "Let's go."

Memory lent Jennifer a sudden vitality that nearly left Jeff behind in their dash for the cottage up the beach.

"The door," Jeff panted, inside. "Fasten the hurricane bolt. Hurry."

While she secured the flimsy door, he ripped through his belongings, aligning his EI communicator again on his breakfast table. Finding out where the islanders got their calm-crystals had become suddenly unimportant; just then, he wanted nothing so much as to see a well-armed patrol ship nosing down out of the Calaxian sunrise.

He was activating the screen when Jennifer, in a magnificent rage in spite of soaked blouse and dungarees, advanced on him.

"You're an Earth Interests spy after all," she accused. "They said in the Township you are no artist, but Uncle Charlie and I —"

Jeff made a pushing motion. "Keep away from me. Do you want that devil tearing the cabin down around us?"

She fell quiet, remembering

the Zid, and he made his call. "Aubray, Chain 147. Come in, Consulate!"

There was a sound of stealthy movement outside the cabin and he flicked sweat out of his eyes with a hand that shook.

"EI, for God's sake, come in! I'm in trouble here!"

The image on his three-inch screen was not Consul Satterfield's but the startled consulate operator's. "Trouble?"

Jeff forced stumbling words into line. The EI operator shook his head doubtfully.

"Consul's gone for the day, Aubray. I'll see if I can reach him."

"He was about to send out an EI patrol ship to take over here in the islands," Jeff said. "Tell him to hurry it!"

He knew when he put down the microphone that the ship would be too late. EI might still drag the secret of the calm-crystal source out of the islanders, but Jeff Aubray and Jennifer Mack wouldn't be on hand to witness their sorry triumph. The flimsy cabin could not stand for long against the sort of brute the owls had shown him, and there was no sort of weapon at hand. They couldn't even run.

"There's something outside," Jennifer said in a small voice.

Her voice seemed to trigger the attack.

THE Zid lunged against the door with a force that cracked the wooden hurricane bolt across and opened a three-inch slit between leading edge and lintel. Jeff had a glimpse of slanted red eyes and white-fanged snout before reflex sent him headlong to shoulder the door shut again.

"The bunk," he panted at Jennifer. "Shove it over."

Between them, they wedged the bunk against the door and held it in place. Then they stood looking palely at each other and waiting for the next attack.

It came from a different quarter — the wide double windows that overlooked the bay. The Zid, rearing upright, smashed away the flimsy rattan blinds with a taloned seizing-hand and looked redly in at them.

Like a man in a dream, Jeff caught up his communicator from the table and hurled it. The Zid caught it deftly, sank glistening teeth into the unit and demolished it with a single snap.

Crushed, the rig's powerful little battery discharged with a muffled sputtering and flashing of sparks. The Zid howled piercingly and dropped away from the window.

That gave Jeff time enough to reach the storm shutters and secure them — only to rush again with Jennifer to their bunk barricade as the Zid promptly renewed

its ferocious attack on the door.

He flinched when Jennifer, to be heard above the Zid's ragings, shouted in his ear: "My Scoop should have the *Queen* afloat by now. Can we reach her?"

"Scoop?" The Zid's avid cries discouraged curiosity before it was well born. "We'd never make it. We couldn't possibly outrun that beast."

The Zid crashed against the door and drove it inches ajar, driving back their barricade. One taloned paw slid in and slashed viciously at random. Jeff ducked and strained his weight against the bunk, momentarily pinning the Zid's threshing forelimb.

Chafi Three chose that moment to reappear, nearly causing Jeff to let go the bunk and admit the Zid.

"Your female's suggestion is right," the Ciriimian croaked. "The Zid does not swim. Four and I are arranging escape on that premise."

The Zid's talons ripped through the door, leaving parallel rows of splintered breaks. Both slanted red eyes glared in briefly.

"Then you'd damn well better hurry," Jeff panted. The door, he estimated, might — or might not — hold for two minutes more.

The Ciriimian vanished. There was a slithering sound in the distance that sounded like a mountain in motion, and with it a ster-

torous grunting that all but drowned out the Zid's cries. Something nudged the cottage with a force that all but knocked it flat.

"My Scoop!" Jennifer exclaimed. She let go the barricade and ran to the window to throw open the storm shutters. "Never mind the door. This way, quick!"

SHE scrambled to the window sill and jumped. Numbly, Jeff saw her suspended there, feet only inches below the sill, apparently on empty air. Then the door sagged again under the Zid's lungings and he left the bunk to follow Jennifer.

He landed on something tough and warm and slippery, a monstrous tail fluke that stretched down the beach to merge into a flat purplish acreage of back, forested with endless rows of fins and spines and enigmatic tendrils. The Scoop, he saw, and only half believed it, had wallowed into the shallows alongside his dock. It had reversed its unbelievable length to keep the head submerged, and at the same time had backed out of the water until its leviathan tail spanned the hundred-odd yards of sloping beach from surf to cabin.

Just ahead of him, Jennifer caught an erect fin-spine and clung with both arms. "Hang on! We're going —"

The Scoop contracted itself

with a suddenness that yanked them yards from the cottage and all but dislodged Jeff. Beyond the surf, the shallows boiled whitely where the Scoop fought for traction to draw its grounded bulk into the water.

Jeff looked back once to see the Zid close the distance between and spring upward to the tail fluke behind him. He had an instant conviction that the brute's second spring would see him torn to bits, but the Scoop at the moment found water deep enough to move in earnest. The Zid could only sink in all six taloned limbs and hold fast.

The hundred-odd yards from cabin to beach passed in a blur of speed. The Scoop reached deeper water and submerged, throwing a mountainous billow that sent the *Island Queen* reeling and all but foundered her.

Jeff was dislodged instantly and sank like a stone.

He came up, spouting water and fighting for breath, to find himself a perilous twenty feet from the Zid. The Zid, utterly out of its element, screamed hideously and threshed water to froth, all its earlier ferocity vanished under the imminent and unfamiliar threat of drowning. Jeff sank again and churned desperately to put distance between them.

He came up again, nearly

strangled, to find that either he or the Zid had halved the distance between them. They were all but eye to eye when Jennifer caught him and towed him away toward the doubtful safety of the *Island Queen*.

Chafis Three and Four appeared from nowhere and stood solemnly by while the Zid weakened and sank with a final gout of bubbles.

"We must have your friend's help," Chafi Three said to Jennifer then, "to recover our investment."

Jeff wheeled on him incredulously. "Me go down there after that monster? Not on your —"

"He means the Scoop," Jennifer said. "They brought it ashore to help us out of the cabin. Why shouldn't it help them now?"

THE Scoop came up out of the water so smoothly that the *Island Queen* hardly rocked, dangling the limp form of the Zid from its great rubbery lips like a drowned kitten.

"Here," Jennifer said.

The Scoop touched its vast face to the *Queen's* rail and dropped the unconscious body to the deck. The Zid twitched weakly and coughed up froth and water.

Jeff backed away warily. "Damn it, are we going through

all that again? Once it gets its wind back —"

Chafi Three interrupted him this time. "The crystal now. We must have it to quiet the Zid until it is safely caged again."

Jennifer turned suddenly firm. "No. I won't let this EI informer know about that."

The Ciriimians were firmer.

"It will not matter now. Galactic Adjustment will extend aid to both Calaxia and Terra, furnishing substitutes for the crystals you deal in. There will be no loss to either faction."

"No loss?" Jennifer repeated indignantly. "But then there won't be any demand for our crystals! We'll lose everything we've gained."

"Not so," Chafi Three assured her. "Galactic will offer satisfactory items in exchange, as well as a solution to Terra's problems."

The Scoop, sensing Jennifer's surrender, slid its ponderous bulk nearer and opened its mouth, leaving half an acre of lower jaw resting flush with the *Island Queen's* deck. Without hesitation, Jennifer stepped over the rail and vanished into the yawning pinkish cavern beyond.

Appalled, Jeff rushed after her. "Jennifer! Have you lost your mind?"

"There is no danger," Chafi Three assured him. "Scoops are benevolent as well as intelligent,

and arrived long ago at a working agreement with the islanders. This one has produced a crystal and is ready to be relieved of it, else it would not have attached itself to a convenient human."

Jeff said dizzily, "The Scoops make the crystals?"

"There is a nidus just back of a fleshy process in its throat, corresponding to your own tonsils, which produces a crystal much as your Terran oyster secretes a pearl. The irritation distracts the Scoops from their meditations — they are a philosophical species, though not mechanically progressive — and prompts them to barter their strength for a time to be rid of it."

JENNIFER reappeared with a walnut-sized crystal in her hand and vaulted across the rail.

"There goes another Scoop," she said resignedly. "The *Queen* will have to tack with the wind for a while until another one shows up."

"So that's why your sails bellied backward when you came in to harbor," said Jeff. "The thing was *towing* you."

A thin, high streak of vapor-trail needling down toward them from the sunrise rainbow turned the channel of his thought.

"That will be Satterfield and his task force," Jeff told the Chafis. "I think you're going to find yourselves in an argument

over that matter of squeezing Terra out of the crystal trade."

They reassured him solemnly.

"Terra has no real need of the crystals. We can offer a tested genetics program that will eliminate racial anxiety within a few generations, and supply neural therapy equipment — on a trade basis, of course — that will serve the crystals' purpose during the interim."

There should be a flaw somewhere, Jeff felt, but he failed to see one. He gave up trying when he found Jennifer eying him with uncharacteristic uncertainty.

"You'll be glad to get back to your patrol work," she said. It had an oddly tentative sound.

Somehow the predictable monotony of consulate work had never seemed less inviting. The prospect of ending his Calaxian tour and going back to a half-barren and jittery Earth appealed to Jeff even less.

"No," he said. "I'd like to stay."

"There's nothing to do but fish and sail around looking for Scoops ready to shed their crystals," Jennifer reminded him. "Still, Uncle Charlie has talked about settling in the Township and standing for Council election. Can you fish and sail, Jeff Aubray?"

The consulate rocket landed ashore, but Jeff ignored it.

"I can learn," he said.

— ROGER DEE

Graveyard of Dreams

By H. BEAM PIPER

Despite Mr. Shakespeare,

wealth and name

are both dross compared with

the theft of hope —

and Maxwell had to rob

a whole planet of it!

STANDING at the armor-glass front of the observation deck and watching the mountains rise and grow on the horizon, Conn Maxwell gripped the metal hand-rail with painful intensity, as though trying to hold back the airship by force. Thirty minutes—twenty-six and a fraction of the Terran minutes he had become accustomed to—until he'd have to face it.

Then, realizing that he never, in his own thoughts, addressed

Illustrated by DILLON





himself as "sir," he turned.

"I beg your pardon?"

It was the first officer, wearing a Terran Federation Space Navy uniform of forty years, or about ten regulation-changes, ago. That was the sort of thing he had taken for granted before he had gone away. Now he was noticing it everywhere.

"Thirty minutes out of Litchfield, sir," the ship's officer repeated. "You'll go off by the midship gangway on the starboard side."

"Yes, I know. Thank you."

The first mate held out the clipboard he was carrying. "Would you mind checking over this, Mr. Maxwell? Your baggage list."

"Certainly." He glanced at the slip of paper. Valises, eighteen and twenty-five kilos, two; trunks, seventy-five and seventy kilos, two; microbook case, one-fifty kilos, one. The last item fanned up a little flicker of anger in him, not at any person, even himself, but at the situation in which he found himself and the futility of the whole thing.

"Yes, that's everything. I have no hand-luggage, just this stuff."

HE noticed that this was the only baggage list under the clip; the other papers were all freight and express manifests. "Not many passengers left aboard, are there?"

"You're the only one in first-class, sir," the mate replied. "About forty farm-laborers on the lower deck. Everybody else got off at the other stops. Litchfield's the end of the run. You know anything about the place?"

"I was born there. I've been away at school for the last five years."

"On Baldur?"

"Terra. University of Montevideo." Once Conn would have said it almost boastfully.

The mate gave him a quick look of surprised respect, then grinned and nodded. "Of course; I should have known. You're Rodney Maxwell's son, aren't you? Your father's one of our regular freight shippers. Been sending out a lot of stuff lately." He looked as though he would have liked to continue the conversation, but said: "Sorry, I've got to go. Lot of things to attend to before landing." He touched the visor of his cap and turned away.

The mountains were closer when Conn looked forward again, and he glanced down. Five years and two space voyages ago, seen from the afterdeck of this ship or one of her sisters, the woods had been green with new foliage, and the wine-melon fields had been in pink blossom. He tried to picture the scene sliding away below instead of drawing in toward him, as though to force himself back to a

moment of the irretrievable past.

But the moment was gone, and with it the eager excitement and the half-formed anticipations of the things he would learn and accomplish on Terra. The things he would learn—microbook case, one-fifty kilos, one. One of the steel trunks was full of things he had learned and accomplished, too. Maybe *they*, at least, had some value . . .

The woods were autumn-tinted now and the fields were bare and brown.

They had gotten the crop in early this year, for the fields had all been harvested. Those workers below must be going out for the wine-pressing. That extra hands were needed for that meant a big crop, and yet it seemed that less land was under cultivation than when he had gone away. He could see squares of low brush among the new forests that had grown up in the last forty years, and the few stands of original timber looked like hills above the second growth. Those trees had been standing when the planet had been colonized.

That had been two hundred years ago, at the middle of the Seventh Century, Atomic Era. The name of the planet—Poictesme—told that: the Surromanticist Movement, when the critics and professors were rediscovering James Branch Cabell.

FUNNY how much was coming back to him now—things he had picked up from the minimal liberal-arts and general-humanities courses he had taken and then forgotten in his absorption with the science and tech studies.

The first extrasolar planets, as they had been discovered, had been named from Norse mythology—Odin and Baldur and Thor, Uller and Freya, Bifrost and Asgard and Niflheim. When the Norse names ran out, the discoverers had turned to other mythologies, Celtic and Egyptian and Hindu and Assyrian, and by the middle of the Seventh Century they were naming planets for almost anything.

Anything, that is, but actual persons; their names were reserved for stars. Like Alpha Gartner, the sun of Poictesme, and Beta Gartner, a buckshot-sized pink glow in the southeast, and Gamma Gartner, out of sight on the other side of the world, all named for old Genji Gartner, the scholarly and half-piratical adventurer whose ship had been the first to approach the three stars and discover that each of them had planets.

Forty-two planets in all, from a couple of methane-giants on Gamma to airless little things with one-sixth Terran gravity. Alpha II had been the only one in the Trisystem with an oxygen atmosphere and life. So Gartner had landed

on it, and named it Poictesme, and the settlement that had grown up around the first landing site had been called Storisende. Thirty years later, Genji Gartner died there, after seeing the camp grow to a metropolis, and was buried under a massive monument.

Some of the other planets had been rich in metals, and mines had been opened, and atmosphere-domed factories and processing plants built. None of them could produce anything but hydroponic and tissue-culture foodstuffs, and natural foods from Poictesme had been less expensive, even on the planets of Gamma and Beta. So Poictesme had concentrated on agriculture and grown wealthy at it.

Then, within fifty years of Genji Gartner's death, the economics of interstellar trade overtook the Trisystem and the mines and factories closed down. It was no longer possible to ship the output to a profitable market, in the face of the growing self-sufficiency of the colonial planets and the irreducibly high cost of space-freighting.

Below, the brown fields and the red and yellow woods were merging into a ten-mile-square desert of crumbling concrete—empty and roofless sheds and warehouses and barracks, brush-choked parade grounds and landing fields, airship docks, and even a spaceport. They

were more recent, dating from Poictesme's second brief and hectic prosperity, when the Terran Federation's Third Fleet-Army Force had occupied the Gartner Trisystem during the System States War.

MILLIONS of troops had been stationed on or routed through Poictesme; tens of thousands of spacecraft had been based on the Trisystem; the mines and factories had reopened for war production. The Federation had spent trillions of sols on Poictesme, piled up mountains of stores and arms and equipment, left the face of the planet cluttered with installations.

Then, ten years before anybody had expected it, the rebellious System States Alliance had collapsed and the war had ended. The Federation armies had gone home, taking with them the clothes they stood in, their personal weapons and a few souvenirs. Everything else had been left behind; even the most expensive equipment was worth less than the cost of removal.

Ever since, Poictesme had been living on salvage. The uniform the first officer was wearing was forty years old—and it was barely a month out of the original packing. On Terra, Conn had told his friends that his father was a prospector and let them interpret that

as meaning an explorer for, say, uranium deposits. Rodney Maxwell found plenty of uranium, but he got it by taking apart the war-heads of missiles.

The old replacement depot or classification center or training area or whatever it had been had vanished under the ship now and it was all forest back to the mountains, with an occasional cluster of deserted buildings. From one or two, threads of blue smoke rose—bands of farm tramps, camping on their way from harvest to wine-pressing. Then the eastern foothills were out of sight and he was looking down on the granite spines of the Calder Range; the valley beyond was sloping away and widening out in the distance, and it was time he began thinking of what to say when he landed. He would have to tell them, of course.

He wondered who would be at the dock to meet him, besides his family. Lynne Fawzi, he hoped. Or did he? Her parents would be with her, and Kurt Fawzi would take the news hardest of any of them, and be the first to blame him because it was bad. The hopes he had built for Lynne and himself would have to be held in abeyance till he saw how her father would regard him now.

But however any of them took it, he would have to tell them the truth.

THE ship swept on, tearing through the thin puffs of cloud at ten miles a minute. Six minutes to landing. Five. Four. Then he saw the river bend, glinting redly through the haze in the sunlight; Litchfield was inside it, and he stared waiting for the first glimpse of the city. Three minutes, and the ship began to cut speed and lose altitude. The hot-jets had stopped firing and he could hear the whine of the cold-jet rotors.

Then he could see Litchfield, dominated by the Airport Building, so thick that it looked squat for all its height, like a candle-stump in a puddle of its own grease, the other buildings under their carapace of terraces and landing stages seeming to have flowed away from it. And there was the yellow block of the distilleries, and High Garden Terrace, and the Mall . . .

At first, in the distance, it looked like a living city. Then, second by second, the stigmata of decay became more and more evident. Terraces empty or littered with rubbish; gardens untended and choked with wild growth; windows staring blindly; walls splotched with lichens and grimy where the rains could not wash them.

For a moment, he was afraid that some disaster, unmentioned in his father's letters, had befallen. Then he realized that the change

had not been in Litchfield but in himself. After five years, he was seeing it as it really was. He wondered how his family and his friends would look to him now. Or Lynne.

The ship was coming in over the Mall; he could see the cracked paving sprouting grass, the statues askew on their pedestals, the waterless fountains. He thought for an instant that one of them was playing, and then he saw that what he had taken for spray was dust blowing from the empty basin. There was something about dusty fountains, something he had learned at the University. Oh, yes. One of the Second Century Martian Colonial poets, Eirrarrsson, or somebody like that:

*The fountains are dusty in the
Graveyard of Dreams;
The hinges are rusty and swing
with tiny screams.*

There was more to it, but he couldn't remember; something about empty gardens under an empty sky. There must have been colonies inside the Sol System, before the Interstellar Era, that hadn't turned out any better than Poictesme. Then he stopped trying to remember as the ship turned toward the Airport Building and a couple of tugs—Terran Federation contragravity tanks, with der-rick-booms behind and push-poles

where the guns had been—came up to bring her down.

He walked along the starboard promenade to the gangway, which the first mate and a couple of airmen were getting open.

MOST of the population of top-level Litchfield was in the crowd on the dock. He recognized old Colonel Zareff, with his white hair and plum-brown skin, and Tom Brangwyn, the town marshal, red-faced and bulking above the others. It took a few seconds for him to pick out his father and mother, and his sister Flora, and then to realize that the handsome young man beside Flora was his brother Charley. Charley had been thirteen when Conn had gone away. And there was Kurt Fawzi, the mayor of Litchfield, and there was Lynne, beside him, her red-lipped face tilted upward with a cloud of bright hair behind it.

He waved to her, and she waved back, jumping in excitement, and then everybody was waving, and they were pushing his family to the front and making way for them.

The ship touched down lightly and gave a lurch as she went off contragravity, and they got the gangway open and the steps swung out, and he started down toward the people who had gathered to greet him.



His father was wearing the same black best-suit he had worn when they had parted five years ago. It had been new then; now it was shabby and had acquired a permanent wrinkle across the right hip, over the pistol-butt. Charley was carrying a gun, too; the belt and holster looked as though he had made them himself. His mother's dress was new and so was Flora's—probably made for the occasion. He couldn't be sure just which of the Terran Federation services had provided the material, but Charley's shirt was Medical Service sterilon.

Ashamed that he was noticing and thinking of such things at a time like this, he clasped his father's hand and kissed his mother and Flora. Everybody was talking at once, saying things that he heard only as happy sounds. His brother's words were the first that penetrated as words.

"You didn't know me," Charley was accusing. "Don't deny it; I saw you standing there wondering if I was Flora's new boy friend or what."

"Well, how in Niflheim'd you expect me to? You've grown up since the last time I saw you. You're looking great, kid!" He caught the gleam of Lynne's golden hair beyond Charley's shoulder and pushed him gently aside. "Lynne!"

"Conn, you look just wonder-

ful!" Her arms were around his neck and she was kissing him. "Am I still your girl, Conn?"

He crushed her against him and returned her kisses, assuring her that she was. He wasn't going to let it make a bit of difference how her father took the news—if she didn't.

She babbled on: "You didn't get mixed up with any of those girls on Terra, did you? If you did, don't tell me about it. All I care about is that you're back. Oh, Conn, you don't know how much I missed you . . . Mother, Dad, doesn't he look just splendid?"

KURT Fawzi, a little thinner, his face more wrinkled, his hair grayer, shook his hand.

"I'm just as glad to see you as anybody, Conn," he said, "even if I'm not being as demonstrative about it as Lynne. Judge, what do you think of our returned wanderer? Franz, shake hands with him, but save the interview for the *News* for later. Professor, here's one student Litchfield Academy won't need to be ashamed of."

He shook hands with them—old Judge Ledue; Franz Veltrin, the newsman; Professor Kellton; a dozen others, some of whom he had not thought of in five years. They were all cordial and happy—how much, he wondered, be-

cause he was their neighbor, Conn Maxwell, Rodney Maxwell's son, home from Terra, and how much because of what they hoped he would tell them? Kurt Fawzi, edging him out of the crowd, was the first to voice that.

"Conn, what did you find out?" he asked breathlessly. "Do you know where it is?"

Conn hesitated, looking about desperately; this was no time to start talking to Kurt Fawzi about it. His father was turning toward him from one side, and from the other Tom Brangwyn and Colonel Zareff were approaching more slowly, the older man leaning on a silver-headed cane.

"Don't bother him about it now, Kurt," Rodney Maxwell scolded the mayor. "He's just gotten off the ship; he hasn't had time to say hello to everybody yet."

"But, Rod, I've been waiting to hear what he's found out ever since he went away," Fawzi protested in a hurt tone.

Brangwyn and Colonel Zareff joined them. They were close friends, probably because neither of them was a native of Poictesme.

The town marshal had always been reticent about his origins, but Conn guessed it was Hathor. Brangwyn's heavy-muscled body, and his ease and grace in handling it, marked him as a man of a high-gravity planet. Besides, Hathor had a permanent cloud-envelope,

and Tom Brangwyn's skin had turned boiled-lobster red under the dim orange sunlight of Alpha Gartner.

Old Klem Zareff never hesitated to tell anybody where he came from—he was from Ashmodai, one of the System States planets, and he had commanded a division that had been blasted down to about regimental strength, in the Alliance army.

"Hello, boy," he croaked, extending a trembling hand. "Glad you're home. We all missed you."

"We sure did, Conn," the town marshal agreed, clasping Conn's hand as soon as the old man had released it. "Find out anything definite?"

Kurt Fawzi looked at his watch. "Conn, we've planned a little celebration for you. We only had since day before yesterday, when the spaceship came into radio range, but we're having a dinner party for you at Senta's this evening."

"You couldn't have done anything I'd have liked better, Mr. Fawzi. I'd have to have a meal at Senta's before really feeling that I'd come home."

"Well, here's what I have in mind. It'll be three hours till dinner's ready. Suppose we all go up to my office in the meantime. It'll give the ladies a chance to go home and fix up for the party, and we can have a drink and a talk."

"You want to do that, Conn?" his father asked, a trifle doubtfully. "If you'd rather go home first . . ."

SOMETHING in his father's voice and manner disturbed him vaguely; however, he nodded agreement. After a couple of drinks, he'd be better able to tell them.

"Yes, indeed, Mr. Fawzi," Conn said. "I know you're all anxious, but it's a long story. This'll be a good chance to tell you."

Fawzi turned to his wife and daughter, interrupting himself to shout instructions to a couple of dockhands who were floating the baggage off the ship on a contragravity-lifter. Conn's father had sent Charley off with a message to his mother and Flora.

Conn turned to Colonel Zareff. "I noticed extra workers coming out from the hiring agencies in Storisende, and the crop was all in across the Calders. Big wine-pressing this year?"

"Yes, we're up to our necks in melons," the old planter grumbled. "Gehenna of a big crop. Price'll drop like a brick of collapsium, and this time next year we'll be using brandy to wash our feet in."

"If you can't get good prices, hang onto it and age it. I wish you could see what the bars on Terra charge for a drink of ten-year-old Poictesme."

"This isn't Terra and we aren't selling it by the drink. Only place we can sell brandy is at Storisende spaceport, and we have to take what the trading-ship captains offer. You've been on a rich planet for the last five years, Conn. You've forgotten what it's like to live in a poorhouse. And that's what Poictesme is."

"Things'll be better from now on, Klem," the mayor said, putting one hand on the old man's shoulder and the other on Conn's. "Our boy's home. With what he can tell us, we'll be able to solve all our problems. Come on, let's go up and hear about it."

They entered the wide doorway of the warehouse on the dock-level floor of the Airport Building and crossed to the lift. About a dozen others had joined them, all the important men of Lichfield. Inside, Kurt Fawzi's laborers were floating out cargo for the ship—casks of brandy, of course, and a lot of boxes and crates painted light blue and marked with the wreathed globe of the Terran Federation and the gold triangle of the Third Fleet-Army Force and the eight-pointed red star of Ordnance Service. Long cases of rifles, square boxes of ammunition, machine guns, crated auto-cannon and rockets.

"Where'd that stuff come from?" Conn asked his father. "You dig it up?"

HIS father chuckled. "That happened since the last time I wrote you. Remember the big underground headquarters complex in the Calders? Everybody thought it had been all cleaned out years ago. You know, it's never a mistake to take a second look at anything that everybody believes. I found a lot of sealed-off sections over there that had never been entered. This stuff's from one of the headquarters defense armories. I have a gang getting the stuff out. Charley and I flew in after lunch, and I'm going back the first thing tomorrow."

"But there's enough combat equipment on hand to outfit a private army for every man, woman and child on Poictesme!" Conn objected. "Where are we going to sell this?"

"Storisende spaceport. The tramp freighters are buying it for newly colonized planets that haven't been industrialized yet. They don't pay much, but it doesn't cost much to get it out, and I've been clearing about three hundred sols a ton on the spaceport docks. That's not bad, you know."

Three hundred sols a ton. A lifter went by stacked with cases of M-504 submachine guns. Unloaded, one of them weighed six pounds, and even a used one was worth a hundred sols. Conn started to say something about that, but

then they came to the lift and were crowding onto it.

He had been in Kurt Fawzi's office a few times, always with his father, and he remembered it as a dim, quiet place of genteel conviviality and rambling conversations, with deep, comfortable chairs and many ashtrays. Fawzi's warehouse and brokerage business, and the airline agency, and the government, such as it was, of Litchfield, combined, made few demands on his time and did not prevent the office from being a favored loafing center for the town's elders. The lights were bright only over the big table that served, among other things, as a desk, and the walls were almost invisible in the shadows.

As they came down the hallway from the lift, everybody had begun speaking more softly. Voices were never loud or excited in Kurt Fawzi's office.

Tom Brangwyn went to the table, taking off his belt and holster and laying his pistol aside. The others, crowding into the room, added their weapons to his.

That was something else Conn was seeing with new eyes. It had been five years since he had carried a gun and he was wondering why any of them bothered. A gun was what a boy put on to show that he had reached manhood, and a man carried for the rest of his life out of habit.

Why, there wouldn't be a shooting a year in Litchfield, if you didn't count the farm tramps and drifters, who kept to the lower level or camped in the empty buildings at the edge of town. Or maybe that was it; maybe Litchfield was peaceful because everybody was armed. It certainly wasn't because of anything the Planetary Government at Storisende did to maintain order.

AFTER divesting himself of his gun, Tom Brangwyn took over the bartending, getting out glasses and filling a pitcher of brandy from a keg in the corner.

"Everybody supplied?" Fawzi was asking. "Well, let's drink to our returned emissary. We're all anxious to hear what you found out, Conn. Gentlemen, here's to our friend Conn Maxwell. Welcome home, Conn!"

"Well, it's wonderful to be back, Mr. Fawzi—"

"No, let's not have any of this mister foolishness! You're one of the gang now. And drink up, everybody. We have plenty of brandy, even if we don't have anything else."

"You telling us, Kurt?" somebody demanded. One of the distillery company; the name would come back to Conn in a moment. "When this crop gets pressed and fermented—"

"When I start pressing, I don't

know where in Gehenna I'm going to vat the stuff till it ferments," Colonel Zareff said. "Or why. You won't be able to handle all of it."

"Now, now!" Fawzi reproved. "Let's not start moaning about our troubles. Not the day Conn's come home. Not when he's going to tell us how to find the Third Fleet-Army Force Brain."

"You *did* find out where the Brain is, didn't you, Conn?" Brangwyn asked anxiously.

That set half a dozen of them off at once. They had all sat down after the toast; now they were fidgeting in their chairs, leaning forward, looking at Conn fixedly.

"What did you find out, Conn?"

"It's still here on Poictesme, isn't it?"

"Did you find out where it is?"

He wanted to tell them in one quick sentence and get it over with. He couldn't, any more than he could force himself to squeeze the trigger of a pistol he knew would blow up in his hand.

"Wait a minute, gentlemen." He finished the brandy, and held out the glass to Tom Brangwyn, nodding toward the pitcher. Even the first drink had warmed him and he could feel the constriction easing in his throat and the lump at the pit of his stomach dissolving. "I hope none of you expect me to spread out a map and show you the cross on it, where the Brain is. I can't. I can't even give the

approximate location of the thing."

Much of the happy eagerness drained out of the faces around him. Some of them were looking troubled; Colonel Zareff was gnawing the bottom of his mustache, and Judge Ledue's hand shook as he tried to relight his cigar. Conn stole a quick side-glance at his father; Rodney Maxwell was watching him curiously, as though wondering what he was going to say next.

"But it is still here on Poictesme?" Fawzi questioned. "They didn't take it away when they evacuated, did they?"

CONN finished his second drink. This time he picked up the pitcher and refilled for himself.

"I'm going to have to do a lot of talking," he said, "and it's going to be thirsty work. I'll have to tell you the whole thing from the beginning, and if you start asking questions at random, you'll get me mixed up and I'll miss the important points."

"By all means!" Judge Ledue told him. "Give it in your own words, in what you think is the proper order."

"Thank you, Judge."

Conn drank some more brandy, hoping he could get his courage up without getting drunk. After all, they had a right to a full report; all of them had contributed something toward sending him to Terra.

"The main purpose in my going to the University was to learn computer theory and practice. It wouldn't do any good for us to find the Brain if none of us are able to use it. Well, I learned enough to be able to operate, program and service any computer in existence, and train assistants. During my last year at the University, I had a part-time paid job programming the big positron-neutrino-photon computer in the astrophysics department. When I graduated, I was offered a position as instructor in positronic computer theory."

"You never mentioned that in your letters, son," his father said.

"It was too late for any letter except one that would come on the same ship I did. Beside, it wasn't very important."

"I think it was." There was a catch in old Professor Kellton's voice. "One of my boys, from the Academy, offered a place on the faculty of the University of Montevideo, on Terra!" He poured himself a second drink, something he almost never did.

"Conn means it wasn't important because it didn't have anything to do with the Brain," Fawzi explained and then looked at Conn expectantly.

All right; now he'd tell them. "I went over all the records of the Third Fleet-Army Force's occupation of Poictesme that are open

to the public. On one pretext or another, I got permission to examine the non-classified files that aren't open to public examination. I even got a few peeps at some of the stuff that's still classified secret. I have maps and plans of all the installations that were built on this planet—literally thousands of them, many still undiscovered. Why, we haven't more than scratched the surface of what the Federation left behind here. For instance, all the important installations exist in duplicate, some even in triplicate, as a precaution against Alliance space attack."

"SPACE attack!" Colonel Zareff was indignant. "There never was a time when the Alliance could have taken the offensive against Poictesme, even if an offensive outside our own space-area had been part of our policy. We just didn't have the ships. It took over a year to move a million and a half troops from Ashmodai to Marduk, and the fleet that was based on Amaterasu was blasted out of existence in the spaceports and in orbit. Hell, at the time of the surrender, we didn't have—"

"They weren't taking chances on that, Colonel. But the point I want to make is that with everything I did find, I never found, in any official record, a single word about the giant computer we call

the Third Fleet-Army Force Brain."

For a time, the only sound in the room was the tiny insectile humming of the electric clock on the wall. Then Professor Kellton set his glass on the table, and it sounded like a hammer-blow.

"Nothing, Conn?" Kurt Fawzi was incredulous and, for the first time, frightened. The others were exchanging uneasy glances. "But you must have! A thing like that—"

"Of course it would be one of the closest secrets during the war," somebody else said. "But in forty years, you'd expect *something* to leak out."

"Why, *during* the war, it was all through the Third Force. Even the Alliance knew about it; that's how Klem heard of it."

"Well, Conn couldn't just walk into the secret files and read whatever he wanted to. Just because he couldn't find anything—"

"Don't tell *me* about security!" Klem Zareff snorted. "Certainly they still have it classified; staff-brass'd rather lose an eye than declassify anything. If you'd seen the lengths our staff went to—hell, we lost battles because the staff wouldn't release information the troops in the field needed. I remember once—"

"But there was a Brain," Judge Ledue was saying, to reassure himself and draw agreement from the others. "It was capable of com-

binning data, and scanning and evaluating all its positronic memories, and forming association patterns, and reasoning with absolute perfection. It was more than a positronic brain—it was a positronic super-mind.”

“We’d have won the war, except for the Brain. We had ninety systems, a hundred and thirty inhabited planets, a hundred billion people—and we were on the defensive in our own space-area! Every move we made was known and anticipated by the Federation. How could they have done that without something like the Brain?”

“Conn, from what you learned of computers, how large a volume of space would you say the Brain would have to occupy?” Professor Kellton asked.

PROFESSOR Kellton was the most unworldly of the lot, yet he was asking the most practical question.

“Well, the astrophysics computer I worked with at the University occupies a total of about one million cubic feet,” Conn began. This was his chance; they’d take anything he told them about computers as gospel. “It was only designed to handle problems in astrophysics. The Brain, being built for space war, would have to handle any such problem. And if half the stories about the Brain are anywhere near true, it handled any

other problem—mathematical, scientific, political, economic, strategic, psychological, even philosophical and ethical. Well, I’d say that a hundred million cubic feet would be the smallest even conceivable.”

They all nodded seriously. They were willing to accept that—or anything else, except one thing.

“Lot of places on this planet where a thing that size could be hidden,” Tom Brangwyn said, undismayed. “A planet’s a mighty big place.”

“It could be under water, in one of the seas,” Piet Dawes, the banker, suggested. “An underwater dome city wouldn’t be any harder to build than a dome city on a poison-atmosphere planet like Tubal-Cain.”

“It might even be on Tubal-Cain,” a melon-planter said. “Or Hiawatha, or even one of the Beta or Gamma planets. The Third Force was occupying the whole Trisystem, you know.” He thought for a moment. “If I’d been in charge, I’d have put it on one of the moons of Pantagruel.”

“But that’s clear out in the Alpha System,” Judge Ledue objected. “We don’t have a spaceship on the planet, certainly nothing with a hyperdrive engine. And it would take a lifetime to get out to the Gamma System and back on reaction drive.”

Conn put his empty brandy glass on the table and sat erect.

A new thought had occurred to him, chasing out of his mind all the worries and fears he had brought with him all the way from Terra.

"Then we'll have to build a ship," he said calmly. "I know, when the Federation evacuated Poictesme, they took every hyper-drive ship with them. But they had plenty of shipyards and spaceports on this planet, and I have maps showing the location of all of them, and barely a third of them have been discovered so far. I'm sure

we can find enough hulks, and enough hyperfield generator parts, to assemble a ship or two, and I know we'll find the same or better on some of the other planets.

"And here's another thing," he added. "When we start looking into some of the dome-city plants on Tubal-Cain and Hiawatha and Moruna and Koshchei, we may find the plant or plants where the components for the Brain were fabricated, and if we do, we may find records of where they were shipped, and that'll be it."



“YOU’RE right!” Professor Kellton cried, quivering with excitement. “We’ve been hunting at random for the Brain, so it would only be an accident if we found it. We’ll have to do this systematically, and with Conn to help us—Conn, why not build a computer? I don’t mean another Brain; I mean a computer to help us find the Brain.”

“We can, but we may not even need to build one. When we get out to the industrial planets, we may find one ready except for

perhaps some minor alterations.”

“But how are we going to finance all this?” Klem Zareff demanded querulously. “We’re poorer than snakes, and even one hyperdrive ship’s going to cost like Gehenna.”

“I’ve been thinking about that, Klem,” Fawzi said. “If we can find material at these shipyards Conn knows about, most of our expense will be labor. Well, haven’t we ten workmen competing for every job? They don’t really need money, only the things money can buy.



We can raise food on the farms and provide whatever else they need out of Federation supplies."

"Sure. As soon as it gets around that we're really trying to do something about this, everybody'll want in on it," Tom Brangwyn predicted.

"And I have no doubt that the Planetary Government at Storisende will give us assistance, once we show that this is a practical and productive enterprise," Judge Ledue put in. "I have some slight influence with the President and—"

"I'm not too sure we want the Government getting into this," Kurt Fawzi replied. "Give them half a chance and that gang at Storisende'll squeeze us right out."

"We can handle this ourselves," Brangwyn agreed. "And when we get some kind of a ship and get out to the other two systems, or even just to Tubal-Cain or Hiawatha, first thing you know, we'll be the Planetary Government."

"Well, now, Tom," Fawzi began piously, "the Brain is too big a thing for a few of us to try to monopolize; it'll be for all Poictesme. Of course, it's only proper that we, who are making the effort to locate it, should have the direction of that effort . . ."

While Fawzi was talking, Rodney Maxwell went to the table, rummaged his pistol out of the pile and buckled it on. The mayor stopped short.

"You leaving us, Rod?"

"Yes, it's getting late. Conn and I are going for a little walk; we'll be at Senta's in half an hour. The fresh air will do both of us good and we have a lot to talk about. After all, we haven't seen each other for over five years."

THEY were silent, however, until they were away from the Airport Building and walking along High Garden Terrace in the direction of the Mall. Conn was glad; his own thoughts were weighing too heavily within him: I didn't do it. I was going to do it; every minute, I was going to do it, and I didn't, and now it's too late.

"That was quite a talk you gave them, son," his father said. "They believed every word of it. A couple of times, I even caught myself starting to believe it."

Conn stopped short. His father stopped beside him and stood looking at him.

"Why didn't you tell them the truth?" Rodney Maxwell asked.

The question angered Conn. It was what he had been asking himself.

"Why didn't I just grab a couple of pistols off the table and shoot the lot of them?" he retorted. "It would have killed them quicker and wouldn't have hurt as much."

His father took the cigar from his mouth and inspected the tip of it. "The truth must be pretty

bad then. There is no Brain. It that it, son?"

"There never was one. I'm not saying that only because I know it would be impossible to build such a computer. I'm telling you what the one man in the Galaxy who ought to know told me—the man who commanded the Third Force during the War."

"Foxx Travis! I didn't know he was still alive. You actually talked to him?"

"Yes. He's on Luna, keeping himself alive at low gravity. It took me a couple of years, and I was afraid he'd die before I got to him, but I finally managed to see him."

"What did he tell you?"

"That no such thing as the Brain ever existed." They started walking again, more slowly, toward the far edge of the terrace, with the sky red and orange in front of them. "The story was all through the Third Force, but it was just one of those wild tales that get started, nobody knows how, among troops. The High Command never denied or even discouraged it. It helped morale, and letting it leak to the enemy was good psychological warfare."

"Klem Zareff says that everybody in the Alliance army heard of the Brain," his father said. "That was why he came here in the first place." He puffed thoughtfully on his cigar. "You said a

computer like the Brain would be an impossibility. Why? Wouldn't it be just another computer, only a lot bigger and a lot smarter?"

"DAD, computermen don't like to hear computers called smart," Conn said. "They aren't. The people who build them are smart; a computer only knows what's fed to it. They can hold more information in their banks than a man can in his memory, they can combine it faster, they don't get tired or absent-minded. But they can't imagine, they can't create, and they can't do anything a human brain can't."

"You know, I'd wondered about just that," said his father. "And none of the histories of the War even as much as mentioned the Brain. And I couldn't see why, after the War, they didn't build dozens of them to handle all these Galactic political and economic problems that nobody seems able to solve. A thing like the Brain wouldn't only be useful for war; the people here aren't trying to find it for war purposes."

"You didn't mention any of these doubts to the others, did you?"

"They were just doubts. You knew for sure, and you couldn't tell them."

"I'd come home intending to—tell them there was no Brain, tell them to stop wasting their time

hunting for it and start trying to figure out the answers themselves. But I couldn't. They don't believe in the Brain as a tool, to use; it's a machine god that they can bring all their troubles to. You can't take a thing like that away from people without giving them something better."

"I noticed you suggested building a spaceship and agreed with the professor about building a computer. What was your idea? To take their minds off hunting for the Brain and keep them busy?"

Conn shook his head. "I'm serious about the ship—ships. You and Colonel Zareff gave me that idea."

His father looked at him in surprise. "I never said a word in there, and Klem didn't even once mention—"

"Not in Kurt's office; before we went up from the docks. There was Klem, moaning about a good year for melons as though it were a plague, and you selling arms and ammunition by the ton. Why, on Terra or Baldur or Uller, a glass of our brandy brings more than these freighter-captains give us for a cask, and what do you think a colonist on Agramma, or Sekht, or Hachiman, who has to fight for his life against savages and wild animals, would pay for one of those rifles and a thousand rounds of ammunition?"

HIS father objected. "We can't base the whole economy of a planet on brandy. Only about ten per cent of the arable land on Poictesme will grow wine-melons. And if we start exporting Federation salvage the way you talk of, we'll be selling pieces instead of job lots. We'll net more, but—"

"That's just to get us started. The ships will be used, after that, to get to Tubal-Cain and Hiawatha and the planets of the Beta and Gamma Systems. What I want to see is the mines and factories reopened, people employed, wealth being produced."

"And where'll we sell what we produce? Remember, the mines closed down because there was no more market."

"No more interstellar market, that's true. But there are a hundred and fifty million people on Poictesme. That's a big enough market and a big enough labor force to exploit the wealth of the Gartner Trisystem. We can have prosperity for everybody on our own resources. Just what do we need that we have to get from outside now?"

His father stopped again and sat down on the edge of a fountain—the same one, possibly, from which Conn had seen dust blowing as the airship had been coming in.

"Conn, that's a dangerous idea. That was what brought on the

System States War. The Alliance planets took themselves outside the Federation economic orbit and the Federation crushed them."

Conn swore impatiently. "You've been listening to old Klem Zareff ranting about the Lost Cause and the greedy Terran robber barons holding the Galaxy in economic serfdom while they piled up profits. The Federation didn't fight that war for profits; there weren't any profits to fight for. They fought it because if the System States had won, half of them would be at war among themselves now. Make no mistake about it, politically I'm all for the Federation. But economically, I want to see our people exploiting their own resources for themselves, instead of grieving about lost interstellar trade, and bemoaning bumper crops, and searching for a mythical robot god."

"You think, if you can get something like that started, that they'll forget about the Brain?" his father asked skeptically.

"That crowd up in Kurt Fawzi's office? Niflheim, no! They'll go on hunting for the Brain as long as they live, and every day they'll be expecting to find it tomorrow. That'll keep them happy. But they're all old men. The ones I'm interested in are the boys of Charley's age. I'm going to give them too many real things to do—building ships, exploring the rest

of the Trisystem, opening mines and factories, producing wealth—for them to get caught in that empty old dream."

He looked down at the dusty fountain on which his father sat. "That ghost-dream haunts this graveyard. I want to give them living dreams that they can make come true."

CONN'S father sat in silence for a while, his cigar smoke red in the sunset. "If you can do all that, Conn . . . You know, I believe you can. I'm with you, as far as I can help, and we'll have a talk with Charley. He's a good boy, Conn, and he has a lot of influence among the other youngsters." He looked at his watch. "We'd better be getting along. You don't want to be late for your own coming-home party."

Rodney Maxwell slid off the edge of the fountain to his feet, hitching at the gunbelt under his coat. Have to dig out his own gun and start wearing it, Conn thought. A man simply didn't go around in public without a gun in Litchfield. It wasn't decent. And he'd be spending a lot of time out in the brush, where he'd really need one.

First thing in the morning, he'd unpack that trunk and go over all those maps. There were half a dozen spaceports and maintenance shops and shipyards within

a half-day by airboat, none of which had been looted. He'd look them all over; that would take a couple of weeks. Pick the best shipyard and concentrate on it. Kurt Fawzi'd be the man to recruit labor. Professor Kellton was a scholar, not a scientist. He didn't know beans about hyperdrive engines, but he knew how to do library research.

They came to the edge of High Garden Terrace at the escalator, long motionless, its moving parts rusted fast, that led down to the Mall, and at the bottom of it was Senta's, the tables under the open sky.

A crowd was already gathering. There was Tom Brangwyn, and there was Kurt Fawzi and his wife, and Lynne. And there was Senta herself, fat and dumpy, in one of her preposterous red-and-purple dresses, bustling about, bubbling happily one moment and screaming invective at some laggard waiter the next.

The dinner, Conn knew, would be the best he had eaten in five years, and afterward they would sit in the dim glow of Beta Gartner, sipping coffee and liqueurs, smoking and talking and visiting back and forth from one table to another, as they always did in the evenings at Senta's. Another bit from Eirrarsson's poem came back to him:

*We sit in the twilight, the
shadows among,
And we talk of the happy days
when we were brave and
young.*

That was for the old ones, for Colonel Zareff and Judge Ledue and Dolf Kellton, maybe even for Tom Brangwyn and Franz Veltrin and for his father. But his brother Charley and the boys of his generation would have a future to talk about. And so would he, and Lynne Fawzi.

— H. BEAM PIPER

We're understandably proud of the fact that our subscribers get their copies of *Galaxy* at least a week before the newsstands do . . . but we can't maintain that enviable record unless, if you're moving, we get your old and new address promptly! It takes time to change our records, you know, so send in the data as soon as you have it!

Looking For Us, Professor?

"Hmm, yes. I was just cogitating upon the causes of GALAXY Science Fiction's phenomenal growth in popularity."

"And that needs an explanation, Professor?"

"From a socio-psychological viewpoint, most definitely. To what do you attribute the constant increase of interest?"

"Well . . . let's try it this way, Professor. Suppose we ask the questions and you answer them."

"So? A bit unusual, but go right ahead."

"Do you think atomic doom is the only future for mankind?"

"Not exactly, but the newspapers and the commentators—"

"Of course. Well, we SHOW other possible futures. Do you believe we will be able to leave the Earth?"

"Eventually, perhaps. But not in our lifetime."

"We don't agree. Assuming you're right, though, isn't that all the more reason to want to know what we'll find on other planets, Professor?"

"I think I see what you mean."

"Can we achieve immortality?"

"Ah. Hum. I've often wondered."

"And travel to different eras in time?"

"That would be exciting."

"And you've been trying to discover why GALAXY is growing so popular? Every idea we've mentioned—and a lot more, besides—is treated dramatically and vividly in GALAXY! You really live them!"

"Umm. How do I subscribe? After all, one shouldn't resist a trend, should one? Heh, heh!"

"Just fill out the coupon—or make out your own order and send it in. The coupon's for your convenience, not ours. And now you'll be one of us!"

Send me 1 year subscription to GALAXY \$3.50—2 years \$6.00

ENCLOSED FIND

YOUR NAME \$

ADDRESS

CITY STATE

DEC 28

Anyone For Doomsday?

Not You!

Not Us!

But it COULD happen, for anything is possible. And anything that is *possible*—and can make a good story—goes into the pages of GALAXY Science Fiction.

Doomsday is only *one* possible future out of many:

The conquest of other planets . . .

Invasions of Earth . . .

Other dimensions . . .

Immortality . . .

Strange and exciting future civilizations that have their roots right in the present . . .

You'll find all these and a lot more in GALAXY, the magazine of *ideas brought vividly to life!*

**For 12 convincing issues, send \$3.50
or \$6.00 for 24 issues,**

TO

GALAXY Publishing Corp.

421 Hudson Street • New York 14, N. Y.